Improving on Nature: Eugenics in Utopian Fiction

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I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approve for the award of a degree by this or any other university.

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Abstract

There has long been a connection between the concept of utopia as a perfect society and the desire for perfect humans to live in this society. A form of selective breeding takes place in many fictional utopias from Plato's *Republic* onwards, but it is only with the naming and promotion of eugenics by Francis Galton in the late nineteenth century that eugenics becomes a consistent and important component of utopian fiction. In my introduction I argue that behind the desire for eugenic fitness within utopias resides a sense that human nature needs improving. Darwin's *Origin of Species* (1859) prompted fears of degeneration, and eugenics was seen as a means of restoring purpose and control. Chapter Two examines the impact of Darwin's ideas on the late nineteenth-century utopia through contrasting the evolutionary fears of Samuel Butler's *Erewhon* (1872) with Edward Bellamy's more positive view of the potential of evolution in *Looking Backward* (1888). Chapter Three uses examples from three late-nineteenth-century feminist utopias to highlight the aspirations within these societies to use science to transform women's social position and transcend the biological determinism of their reproductive role. Chapter Four focuses on the social theory and utopian fiction of Charlotte Perkins Gilman to illustrate how eugenics becomes part of her vision of progress for women and the human race as a whole. Chapter Five turns to dystopian fiction from H.G. Wells, Aldous Huxley, Yevgeny Zamyatin, Charlotte Haldane and Katherine Burdekin to examine how eugenic ideas retained an element of idealism even in the context of the dystopias of the first half of the twentieth century. Chapter Six looks at the fate of eugenics in utopian fiction after the Second World War and argues that the resurgence of utopianism in the form of the ecological utopia continue to rely on eugenics, population control and manipulation of human behaviour to succeed. My conclusion argues that eugenics is a utopian idea with enduring appeal despite the disastrous effects of its practical implementation, and that utopian and dystopian fiction offer an important lens through which to understand the hopes and fears represented by the different versions of eugenics and the current debates over genetic enhancements and transhumanism.

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1. Introduction

Historically there has always been a tension between the idea of the perfect society and the reality of human behaviour. Eutopia, the good society, is also outopia, nowhere land, a recognition that the perfect society cannot exist in our present world. However, by the nineteenth century, social reformers, inspired by revolutionary ideals and the scientific advances of the day, believed that utopia could be created in the real world. Real utopians communities such as New Lanark or Brook Farm testify to this. But so also do the works of utopian fiction of this era, which whilst retaining fantastical and satirical trappings, focus largely on social reform. Scientists too thought utopia might be achievable. Eugenics, the movement for improving the genetic quality of human populations through directed breeding, offered the hope of creating better people to make utopian ideas a reality. Francis Galton, who coined the term “eugenics” in 1883, suggested that watching for opportunities to intervene in the process of evolution could ensure that “the Utopias in the dreamland of philanthropists may become practical possibilities” (“Presidential” 12). Alongside the drive to make utopian dreams a reality, late-nineteenth-century writers of utopian fiction were confronted with the implications of Darwin’s *Origin of Species* (1859) and *Descent of Man* (1871) which changed the popular perception of humans from divinely created beings to malleable, ever-evolving descendants of animals. The concept of evolution troubled the imagination of writers such as Edward Bulwer-Lytton, Samuel Butler and H. G. Wells, calling into question the inevitability of progress. Evolution by natural selection appeared random and purposeless, leading to fears of degeneration, a discourse popularised in Ray Lankester’s *Degeneration: A Chapter in Darwinism* (1880) and Max Nordau’s *Degeneration* (1892). Worse still, the citizens of utopia might not even be human, but the super-evolved descendants of humanity, to whom humans would merely be equivalent to primitive animals.

All these elements led to an interest in controlling evolution and harnessing its powers for utopian ends, through replacing natural selection with artificial selection. It was felt that if farmers could improve their stock by breeding from their best animals, then humans could potentially do the same by encouraging the best people to breed. The idea was not new. Plato suggested it in *The Republic*, and the nineteenth-century Oneida Community attempted to

put it into practice under the earlier name of stirpiculture. What was new about Galton's eugenics was that it put the breeding of humans on an apparently scientific basis, backed up by a whole statistical machinery of tables and formulae from the Eugenics Laboratory (founded in 1907) and the academic credibility of a Chair of Eugenics at University College London, from 1911 onwards. Eugenics was also taken up by social reformers who lobbied for eugenic policies to encourage the fit to breed more and the weak and feeble-minded to breed less. Writers of utopian fiction experimented with these ideas in their work, hoping to force evolution into an upward trajectory which would back up their social imaginings. Eugenics also appealed to the imagination of female writers of utopian fiction, offering women an important role in the evolution of the human race as wives and mothers, and also through their political aspirations to create a more moral society which would promote the mental and physical health of future generations.

In my thesis, I explore the connection between the concept of utopia as a perfect society and eugenics, with its negative connotations and horrific consequences when applied in the real world. I argue that utopian ideas helped form eugenics and that eugenic ideas circulating within utopian and dystopian fiction from the late nineteenth century onwards supported the idea that eugenics would improve society. I see utopian fiction as a valuable parallel record to the scientific and social texts on eugenics. As a genre, it sits part-way between polemic and imaginative fiction, offering a site for testing the indeterminacies and ambitions of eugenics and helping to understand its origins and eventual popularity. My project will focus on readings of the politics, beliefs and ideologies surrounding reproduction and the perfectibility of human nature in utopian and dystopian fictions involving scientific improvements to humans or society. I will consider the role of science in the formulation of utopian texts, as well as the ambition of utopian texts to influence the direction of science and society, at a time when the boundaries between scientists and writers were more fluid than they are today.

1.1 Eugenics and Utopian Fiction

Historical and literary studies of eugenics have undergone a resurgence in the twenty-first century. The silence about eugenics in the aftermath of World

War Two and the eagerness of those involved in sterilisation programmes to disassociate themselves from the Nazi campaigns led to secrecy and a reluctance to admit to wrong-doing. It is only in recent years that society has begun to face up to the former popularity of eugenic ideas, not just in Germany but all round the world, as well as their persistence in various guises after the Second World War. Breakthroughs in genetic science and work on codifying the human genome have also led to fears of eugenics being reintroduced in a new form and fuelled interest in understanding the history and ideology of eugenics. Daniel J. Kevles's seminal work on the history of eugenics *In the Name of Eugenics* (1985) was motivated by recognition "that the subject [of eugenics] casts a shadow over all contemporary discourse concerning human genetic manipulation" (xiii). Other historical studies focussing on specific aspects of eugenics have followed, including Richard A. Soloway's *Demography and Degeneration* (1990), which shows how important questions of population and birth control are to eugenics, and Marius Turda's *Modernism and Eugenics* (2010) which offers an international perspective on eugenics in the build-up to the Second World War. There are also important recent publications on post-war eugenics, including Stefan Kühl's *For the Betterment of the Race* (English edition 2013) and *Sterilized by the State* (2013) by Randall Hansen and Desmond King, which dispute the myth that eugenics disappeared after the Second World War. The 2010 publication of *The Oxford Handbook of the History of Eugenics*, edited by Alison Bashford and Philippa Levine, shows the diversity of work being conducted in the study of the history of eugenics throughout Europe, America, India and Latin America. In 2008, there was also a special issue of *Studies in History and Philosophy of Science Part C* dedicated to "Eugenics, sex and the state" in which Lesley Hall, in her introductory remarks, made the important point that "we should be talking about 'eugenicses' rather than a coherent and stable 'eugenics'" (177). She argued that "the simple use of the term as if it were monolithic and unproblematic tends to occlude vast differences of meaning accorded to it by different cultures, by different individuals and different movements" (177). The resulting selection of papers showed that dealing with the history of eugenics needs to go beyond what Richard Overy describes in the Afterword as the twin obsessions with "the experience of the Third Reich" and "American and Swedish sterilisation policy" (270). Overy argues that these papers also recognise the many reasons why

people engaged with eugenics, including “Utopian aspirations for the ideal modern community” (272). My project situates itself in this area of research into the multiple meanings of eugenics and the recognition that as well as being coercive, reductionist and scientistic, at times and for some people, eugenics also appeared to be utopian.

The study of eugenics through the lens of literature is as important for understanding the popular appeal of eugenics as historical studies. Angelique Richardson combined historical and literary perspectives in *Love and Eugenics* (2003), which used research on New Woman writers to show the importance of the relationship between early feminism and eugenics. My project, although not exclusively about eugenics and feminism, also interrogates the eugenic dreams of women, though through the more overt fantasies of social improvement by writers of feminist utopian fiction. The essay that first sparked my interest in eugenics and the paradoxical appeal of eugenics to otherwise progressive writers was David Bradshaw’s “Eugenics: ‘they should certainly be killed’” (2003) with its shocking roll-call of modernist writers in agreement with eugenics. Many of these writers are discussed in more depth in Donald J. Childs’s *Modernism and Eugenics: Woolf, Eliot, Yeats and the Culture of Degeneration* (2001), a work which shows the impact of eugenics in British modernist circles. More recently, Clare Hanson demonstrated in *Eugenics, Literature, and Culture in Post-War Britain* (2013) that literary interest in eugenics did not disappear after the Second World War. She combines readings of post-war literature with a critique of eugenic elements of British culture, in particular the Welfare State, which she argues was set up by eugenicists with a eugenic agenda and eugenic preconceptions.

Hanson’s work also illustrates the potential for discomfort when writing about eugenics, as the subject remains sensitive, and any association with eugenics has the potential to destroy sacred myths, and taint or contaminate the people or institutions concerned. This is certainly the case with utopian fiction. Much scholarship on eugenics in individual works of utopian fiction considers eugenics as an aberration or mistake, or else evidence of the writer holding intellectually abhorrent views in general. This is particularly true in the case of H.G. Wells, Aldous Huxley and Charlotte Perkins Gilman, as Chapters Three, Four and Five will illustrate. Even more general studies of eugenics in utopian fiction, such as Patrick Parrinder’s “Eugenics and Utopia: Sexual

selection from Galton to Morris" (1997) involve a certain amount of questioning of reputations. My approach is to read the eugenics of utopian fiction writers within their historical context in a way that accepts the contradictions of the day without accusations, while at the same time not condoning racism, class prejudice, anti-disability rhetoric or other discriminatory attitudes. My intention in arguing that eugenics played a significant role in utopian thinking from the late nineteenth century onwards is not to support the argument that all utopian ideas are dangerous, but to look at how utopianism can give expression to popular wishes, work as a thought-experiment or explore the gaps between utopian thought and practice. This study is based on the premise that utopianism is an important intellectual activity whether in the form of social theory, fiction or utopian communities, and that utopian fiction has the potential to have the widest influence of all three, as can be seen by the high sales of works such Edward Bellamy's *Looking Backward* and Ernest Callenbach's *Ecotopia*.

There has been much written on the form and purpose of utopianism. Krishan Kumar, for example, in *Utopia and Anti-Utopia in Modern Times* (1987) argues that the literary form of utopia is not important as very few utopias are great works of literature, and many authors are perfunctory in their use of the form (25). While there is much truth in this observation, I think form repays analysis and that fictional elements, particularly the ultimate fate of the protagonist (for example, do they stay in utopia, marry, leave, escape, get thrown out?) says a lot about the attractiveness of the utopia, and the writer's engagement with it. Non-fiction written in the utopian mode (the writers that Kumar suggests are Rousseau, Saint Simon, Marx and Engels) does not have this extra viewpoint which often provides a commentary on the most serious of utopian projects, and occasionally shows where authors have problems with accepting their own ideas. Tom Moylan uses the term "critical utopia" to describe the more sophisticated utopias of the 1970s which offer a critique of the utopian societies they envisage. While none of the earlier utopias I examine could be termed "critical utopias", most of them contain some form of critique, however muted, of aspects of their perfect society. Some also see utopianism as a process of improvement, a model which Erin McKenna recommends in *The Task of Utopia: A Pragmatist and Feminist Perspective* (2001). Evolution, as H.G. Wells argued, put an end to the static utopia, but, as I discuss in Chapter One, replaced it with nightmare visions of inhuman perfection.

Eugenics, on the other hand, made it possible to imagine gradual improvements, generation by generation. McKenna bases her process model of utopia on the pragmatist philosophy of nineteenth-century thinker John Dewey, whose ideas have much in common with the utopian fiction inspired by evolution, including an interest in the power of intelligence to directly and consciously address social problems, and an awareness of the need of adapting to the physical and social environment to survive (McKenna 92-3). Ruth Levitas's argument in *Utopia as Method* (2013) for seeing utopianism at the end of the nineteenth century as "speculative sociology of the future" (83), also fits well with my study. Levitas's claim was certainly true of Charlotte Perkins Gilman, who wrote a number of utopian works to illustrate her social theory, and H.G. Wells, who argued that "the creation of utopias – and their exhaustive criticism - is the proper and distinctive method of sociology" ("So-Called" 204).

The French philosopher Paul Ricoeur is one of the many twentieth-century commentators who distrusts the concept of utopia, describing it as having a "pejorative reputation" and representing "a social dream without concern for the real first steps necessary for movement in the direction of a new society" (1-2). Frank E. Manuel and Fritzie P. Manuel in *Utopian Thought in the Western World* (1979), a comprehensive study of utopian philosophy, have a more positive but equally visionary concept of utopianists, claiming that "They have discovered truths that other men have only vaguely sensed or have refused to recognize. The utopian often emerges as a man with a deeper understanding of the drift of his society than the hardheaded problem-solver with their nose to the grindstone of the present, blind to potentiality" (28). However, the vast majority of the utopian works of the late nineteenth and early twentieth century do not conform to either of these stereotypes. They were written by women as well as men. They were often practical as well as fanciful, sometimes offering complete blueprints for their realisation, sometimes simply satirising social trends.[1] Most of the texts I examine contain not blueprints as such but alternative versions of reality that provide the chance to see how society would work if certain changes were made. They also offer, as Matthew

[1] See for example Howard P. Segal's *Technological Utopianism in American Culture* where he offers blueprints from twenty-five American technological utopias from the late nineteenth century or early twentieth century.

Beaumont suggests, valuable means of viewing social ideology in action (*Utopia* 6), or, in the case of eugenics, reading the hopes for eugenic improvement without the determinism of our current historical knowledge.

As has already been suggested, the relationship between utopian fiction and eugenics predates Galton's coining of the term eugenics in 1883. Peter Morton in *The Vital Science: Biology and the Literary Imagination* (1984) asserted that "Eugenics was indeed a component in most of the Utopian writing after 1870", usually in the form of state regulation of parenting (129). Others have also found eugenic tendencies in utopian fiction going back to Plato and Campanella. John Carey is referring to eugenics in the introduction to *The Faber Book of Utopias* (1999) when he argues that: "How to beget excellent offspring has always been a prime utopian concern, and it offers, supposing it could be made to work, an absolutely fool-proof way of replacing real people with utopians" (xvii). Parrinder too takes a historical stance to argue that the "traditional utopia" relies as much on eugenics as "on stability, social stratification and the abolition of private property." For him, reference to perfect beauty is enough to signify "a deliberate or inadvertent eugenic policy" ("Eugenics and Utopia" 1). In a similar vein, my research does not confine itself to what is labelled as eugenics, but looks for ideas of evolution, control of breeding, optimism (or pessimism) about human nature, and racial improvement. My focus is on understanding the various strands of social and scientific discourse which have contributed to the eugenic content of utopian fiction and discovering what the importance of eugenics in these works actually means for an understanding of eugenics.

The link between dystopian fiction and eugenics is, on the face of it, more obvious. Yet, as I discuss in my fourth chapter, eugenics is not always seen as dystopian, even in dystopias. The relationship between utopia and dystopia remains a contested one. Utopian fiction was the dominant genre at the start of the twentieth century, and dystopianism was largely defined in opposition to it. Dystopias were simply known as anti-utopias until the 1960s, and were historically seen either as parasitically dependent on utopia, or as a form of parody. Gary Morson calls dystopia "an anti-genre" (115) while Kumar defines dystopia as the distorted image of utopia (100). Satires on utopia, such as Jonathan Swift's Laputa or Samuel Butler's *Erewhon* (1872), still tend to be classified as utopian. Even Thomas More's *Utopia* can be seen as being as

much satire as serious proposal for improving the world. If utopia itself is dystopian, then it is also important to recognise that dystopias are in some sense utopian. Many dystopias have been written by writers who also write utopias, such as H.G. Wells and Aldous Huxley, or by those who hold arguably utopian political beliefs such as Yevgeny Zamyatin and George Orwell. Others have been written from the standpoint of a future utopian outcome to dystopian oppression such as Jack London's *The Iron Heel* (1908) and Margaret Atwood's *The Handmaid's Tale* (1985). This ambivalence at the heart of dystopia makes the role of eugenics in dystopian fiction especially revealing, as there is often a utopian element to the representation of eugenics in these works, or an attraction to eugenic ideas notwithstanding their negative consequences. In the next section I will look at these utopian elements in more details, through an analysis of what eugenicists themselves saw as utopian in the idea of eugenics.

1.2 What is Utopian about Eugenics? The Utopianism of Eugenics

The history of eugenics as an ideology used to justify enforced sterilisation, racist immigration policies and anti-semitic racial cleansing makes eugenics seem anything but utopian, particularly when considering the atrocities of Nazi eugenics. However, it should be remembered that nineteenth-century eugenics began as a narrative about improving the human species, and was at the time seen by some as a genuine hope for a better future. This section of my introduction investigates the latent utopianism of this broader concept of eugenics, as a framework for understanding how eugenics came to be such an important element in utopian fiction. It also introduces the question of whether it was the specific historical circumstances of the development of eugenics in Europe and America that led to the disastrous trajectory of eugenics or the utopian ideas behind it. This question is particularly relevant to the ethical issues being raised by advances in genetic engineering.

"Hereditary Talent and Character", Galton's first two-part article proposing the idea of the hereditability of mental and moral characteristics, contained a reference to a rather modest meritocratic utopia where those with good exam results would be given financial incentives to marry each other. Published in *Macmillan Magazine* in 1865, the first part of the article showed the preliminary results of Galton's investigation of how eminence, as defined by

biographical dictionaries, tended to run in families, an argument which he would advance in more detail in the book *Hereditary Genius* (1869). In the second part of the article, Galton supplemented the positive eugenics of his initial scenario with the negative eugenics of discouraging the less talented from breeding. There is no utopian fantasy presented to sell this idea, only the cold facts of a statistical elimination of caste B, "the refuse", by caste A, those "selected for natural gifts" (319). This article neatly demonstrates the discontinuity between the two narratives of eugenics. Not simply positive and negative eugenics, but eugenics as science, in particular statistical science, and eugenics as an ideal. Galton's statistical approach, which he used throughout his life to argue for eugenics, masks the fact that his assumptions and aims were not scientific but subjective. Even though Galton invokes what he refers to repeatedly in the article as Darwin's "law" of natural selection, the assumption at the heart of his study is summed up in a single sentence supported by neither statistics nor evolutionary science: "Everything we possess at our birth is a heritage from our ancestors" (321), and his aim is nothing less than to "produce a highly bred human race" (319), capable of arresting "the intellectual anarchy " caused by what he described as lack of "general intellectual capacity" (166). On the basis of this dogma, Galton built a whole research edifice dedicated to convincing the world of the truth of his observation, leading to him coining the term "eugenics" in 1883, co-founding the journal *Biometrika* with Karl Pearson and Walter Weldon for the purpose of publishing relevant biological data in 1901, and setting up the Eugenics Record Office in 1904.[2] Galton also endowed a Chair of Eugenics at University College London, which was held by Karl Pearson from 1911.

Despite the brief excursion into utopianism in his original article on heredity, Galton went out of his way to deny that there was anything utopian about eugenics. For him, eugenics was an objective and achievable scientific project. In his original definition of eugenics as it appeared in a footnote to *Inquiries into Human Faculty* (1883), Galton referred to "the more suitable races or strains of blood" prevailing "speedily over the less suitable" (25). However, he sought to adopt more neutral language in later definitions, defining eugenics in 1908 as "the study of those agencies which under social control may improve or

[2] The Eugenics Record Office became the Galton Eugenics Laboratory, part of University College London in 1907.

impair the racial qualities of future generations, either physically or mentally" (qtd. in Pearson, *Life* 348). Indeed Galton tended to use utopian to mean the opposite of practical. In 1883, he commented that his project to statistically eliminate group B through early marriage of group A needed a definite working plan, otherwise "the consideration of improving the human race is Utopian" (*Inquiries* 211). By 1903 he was feeling more optimistic, writing in an article for the *Daily Chronicle* that "a material improvement in our British breed is not so Utopian an object as it may seem" ("Our "). In 1908, in an address to the Eugenics Education Society, Galton emphasised "that Eugenics has a far more than Utopian interest; that it is a living and growing science, with high and practical aims" (qtd. in Pearson *Life* 349). Galton clearly identified with the OED definition of "utopian", as something impractical, or to quote the definition in full: "Of a vision, plan, etc.: expressing or founded on an unrealistic belief in the perfectibility of society; excessively idealistic; impracticable; (of an ideal condition) illusory, unattainable" ("utopian, adj. and n." *OED Online*). Nonetheless, eugenics, despite Galton's protestations, fits this definition particularly well. There is no doubt about Galton's underlying belief in the perfectibility of society through eugenics, nor about the idealism of this belief. In 1911, the last year of his life, Galton dictated his own utopian novel, *The Eugenic College of Kantsaywhere*, in the hope of conveying to the novel-reading public what the perfect eugenic society might look like. Most of the unpublished novel was destroyed by Galton's niece, but the sections on the eugenic mechanisms of the society were preserved. These pages, which build on his original utopian idea of the best men marrying the best women, offer possibly the least compelling vision of a eugenic community ever written. They describe a society based on the social attitudes that Galton believed would become normal if people could be persuaded of the importance of eugenics. Obsessed with ancestry, physical fitness and grace, these utopians mainly care about passing eugenic exams, marrying for eugenic benefit and ostracising those who fail to meet their eugenic standards. It is possible that the missing portion of the novel demonstrates the benefits to society of eugenic superiority, the pleasures of living in this world of such excellent people and the contribution they might make to the sum of human happiness, though it seems unlikely as there is little indication of this approach in the existing text. Galton also had to fight the narrative logic of his own story which clearly calls for a eugenic misfit to

overthrow the all-powerful college, marry the highest scoring of the women and disprove the whole eugenic system on which it is based. The nearest Galton could come to conflict was to provide a hero from outside the community who was unable to prove the excellence of his ancestry through lack of appropriate record-keeping, but who nonetheless was eugenically sound in every other respect. In a genre characterised by its didacticism, Galton's attempt at utopian fiction stands out for not even providing a basic fictional dialogue between utopian guide and visitor, but letting the visitor learn all the details of the society from the College Calendar. Despite Galton's hopes for popular appeal, there is also inevitably a chapter on the statistical basis of the marking scheme for the eugenics exam (Chapter V, 195-9).

Yet despite all its weaknesses Galton's attempt at imagining a eugenic society in action is worthy of attention for the way it exemplifies the fine line between possibility and impossibility in utopian thought. It demonstrates that, in the early twentieth century, utopian fiction could be a vehicle for very detailed schemes which were arguably, at least in their aims, utopian in a second sense, that of striving to be the best society imaginable. Galton's lack of skill at writing fiction or in convincing the twenty-first century reader of the desirability of his scheme is irrelevant in this respect. By writing *Kantsaywhere*, Galton was re-affirming his belief that eugenics was a practical possibility, but also positioning it as utopian by describing it in the context of an imaginary perfect society, that could exist, but does not. Plato places similar emphasis on the practicability of his schemes in *The Republic*, where in Part VII Socrates is asked to "show that the state we have described is a practical possibility" (189). Plato's methods though are very different from Galton's as they involve testing each hypothesis and building up a philosophical case for each proposal, resulting in a series of thought experiments. Even so, Galton may have used Plato's *Republic* as a model or inspiration. He was certainly aware of *The Republic* and therefore of Plato's use of the analogy with animal breeding to justify state control of the quality and quantity of children.[3] Plato too describes procedures for selecting the right people to become Guardians, the best of whom will be given privileged breeding rights. However, while the College of Kantsaywhere scores people

[3] Galton studied Classics for the Mathematical Tripos at Cambridge (see Gillham Chapter 3). Galton also quotes from Plato's *Republic* in his 1907 Herbert Spencer lecture to demonstrate how customs which initially seem shocking can come to be accepted as normal (*Probability* 27).

mainly on physical qualities such as health, fitness, physique, grace and even a good singing voice, Plato tested for dedication to the truth, courage and resistance to being led astray. In *The Republic*, there are no exams, or elaborate statistical procedures, simply the setting of challenges and observation of the children as they grow up (114-5). Galton too admitted earlier, in 1908, that something he called character was more important than physique and ability, but he left it out of *Kantsaywhere*, probably due to the difficulties of assessing character on a statistical basis.[4] Unsurprisingly, the College of Kantsaywhere does not produce wise Guardians, but Senators with a stake in maintaining the system through their own eugenically high-scoring offspring. The work of the College agents in deporting undesirables and setting up work colonies for the eugenically unfit confirms that for all practical purposes Kantsaywhere comes across as a dystopia.[5] For Plato, eugenics is a means to an end, the training of philosopher kings who will ensure the good order and stability of society, and the eugenic selection procedures behind it only interested him to a limited extent. Galton on the other hand became obsessed by selection schemes as his initially simple but naive concept of dividing society into desirables and undesirables proved more difficult to achieve than anticipated.

If there is little to recommend in the eugenic utopia of *Kantsaywhere*, and even less to inspire, it is clear that it is not the statistical science or the practical details of the social applications of eugenics that constitute its utopian appeal. Karl Pearson, Galton's successor and biographer, claims that in the last decade of his life Galton attempted to turn eugenics into a religion: "He had in view Eugenics not only as a science, not only as an art, but also as a national creed, amounting, indeed, to a religious faith" (220). Kevles also argues that eugenics functioned as a religion for Galton, claiming that he "found in eugenics a scientific substitute for church orthodoxies, a secular faith, a defensible religious obligation" (12). Indeed, Kevles describes eugenics as a "secular faith",

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[4] Galton thought that the worth of a person should be classified under three headings: physique, ability and character, asserting that character was the most important of these, but the least easy to rate ("Local Associations" 646). He proposed assessment of character based on the opinion of tutors and fellow students (Pearson *Life* 231) or the tenure of a position of trust ("Local Associations" 646).

[5] For example, Richardson points out the biologisation of class in *Kantsaywhere* with the Unfit being known as The Unclassed (*Love* 22). However, not all comments are negative. Gillham argues that "this fanciful, but unpublished, novel expressed more clearly than any dry scientific paper or popular article what he hoped eugenics would achieve" (342).

structuring his account of early eugenics around the concept of eugenics as a religion with chapter headings that reference faith, worship and gospel. Hansen and King though make the point that "defining eugenics as a religion provides little explanatory value" and that the real question is why this particular religion attracted so many followers. The interplay between the concept of religion and utopia has the potential for making this attraction clearer. While not suggesting that there is no difference between religious and utopian idealism, there is often an overlap, or blurring, between the two. Kevles, for example, argues that as well as being a religion, positive eugenics was also, at least for the social radicals who took it up, a form of utopianism (85), while Michael Burleigh suggests that eugenics had "evolved from primitive utopianism" into a "a collectivist, materialist, technocratic creed which promised to conquer, in a Promethean way, nature's final frontier" (*Eugenic* 64).[6] The link between utopianism and religion is also explored by Manuel and Manuel who see "that strange absorption in a heaven on earth" of utopianism as a legacy of Christianity, fused with the Hellenic concept of the ideal city (16). In the case of Galton, eugenics as religion has a similar aim to his eugenic utopias, that of inculcating religious zeal into social behaviour around eugenics. In 1907, Galton talks of proclaiming "a 'Jehad' or Holy War against customs and prejudices that impair the physical and moral qualities of our race" (*Probability* 29-30). Far more characteristically, he hoped that someday communities would accept eugenics as "a quasi-religion" and direct their compassion and charitable donations away from the weak and sick towards "the more virile desire of promoting the natural gifts and the national efficiency of future generations" ("Local Associations" 647). The only element of the established religions that Galton wished to emulate was their control over social mores, for it was not faith that would validate eugenic practices, only scientific evidence. His utopian fiction, on the other hand, provides an outlet for the utopian dream, unchanged between the 1860s and his death, of society recognising the importance of eugenics and devising ways to put it into practice. In fact, by the end of his life, Galton seemed slightly surprised that eugenics had moved from his utopian dreamland to real life, finding it remarkable enough to point out to the nascent Eugenics

[6] Burleigh's reference to conquest of nature's final frontier, is more of a utopian concept than a religious one, especially with its nod to *Star Trek*, which was, arguably, one of the most influential utopian visions of the 1960s.

Education Society that "its study is being seriously carried on under the shelter of the University – not of Gulliver's Laputa – but of this London of ours" and that it has a "Research Fellow and a Research Scholar ... engaged all day on difficult statistical inquiry" in their very own "Eugenics Laboratory" ("Eugenics").

If for Galton eugenics was a middle-class English scheme to ensure that the better people would breed and not waste their charitable instincts on the undeserving poor, for Pearson, who developed the statistical element of eugenics, it was a much more urgent and imperative necessity.[7] There is no doubt that the status of Pearson's scientific work was tied up with the acceptance of eugenics, but it is also evident from his biography of Galton that he was far more invested in the idealistic elements of eugenics than his mentor. Pearson's dream was "in the distant future a rivalry of nations in the task of bringing to greater perfection their human stocks" through "an intensive study of biological law applied to man" (*Life* 218). This dream is larger than the College of Kantsaywhere, emphasising the whole of humanity coming under biological law, and new moral and social codes. Pearson was a socialist, and his vision of eugenics was also less class-based than Galton's, believing that "There is a hereditary nobility, an aristocracy of worth, and it is not confined to any social class; it is a caste which is scattered throughout all classes …" (353).[8] Pearson supported both national eugenics as "the only means left to provide any nation with men strong in mind and body" and international eugenics as "the sole possibility of producing finer races of mankind" (*Life* 219). The difference in tone between Galton's rather under-stated claims for eugenics and Pearson's commentary shows how much had changed between Galton's death in 1911 and the publication of the third volume of Galton's biography in 1930. Writing in the 1920s, Pearson's views were clearly shaped by the First World War, and the mounting tensions of nationalistic rivalry. He was concerned about declining intelligence, and had doubts about democracy itself: "We might as successfully ask the weeds in a garden to make way of their own accord for the flowering

[7] Pearson continued the process of placing eugenics on a scientific footing by applying statistical techniques to eugenics, proposing large surveys, for example of 20,000 to 30,000 children to discover the influence of unhealthy parental work environments on the health and intelligence of the child (*Groundwork* 8-9). Pearson's data analysis encouraged him to state as a statistical fact that "It is five to ten times as advantageous to improve the condition of the race through parentage as through change of environment" (*Problem* 8).

[8] According to Kevles, Pearson was only lacking in class prejudice to the extent that he included "the 'better' sort of English workingman" in his definition of eugenic fitness, which was mainly "centered in the middle, and particularly the professional class" (32-33).

plants whose development they choke. Let my readers think what a gardener could achieve, if his tenure of office depended on the consent of the weeds" (*Life* 349). Pearson's ideas show that it is not only positive eugenics that can be seen as utopian. With his analogy of gardening and weeds, Pearson developed the concept of negative eugenics for the greater good of the race, and thus a rhetoric of the ends justifying the means when it came to racial improvement. Despite Pearson's reliance on the rational scientific certainty of his statistical methods, he was not as objective as he liked to believe. Kevles concludes that "When it came to biometry, eugenics, and statistics, he [Pearson] was the besieged defender of an emotionally charged faith" (36).

R. A. Fisher, who was eventually to build a bridge between biometry, Mendelian genetics and Darwinian natural selection, as well as taking the Chair of Eugenics at UCL in 1934, gave an address to the Eugenics Education Society in 1913 which expressed continuing optimism about evolution:

> [T]he best are to become better by survival. It is in this that we differ from less biological Utopia seekers; ... eugenics comes at an appropriate time, when our civilisation is already sadly acknowledging that the great bar to progress lies in human imperfection; for the first time it is made possible that humanity itself may improve as rapidly as its environment. (310)

Fisher also suggested that eugenicists themselves were the "coming race" or as he put it, "a new natural nobility of worth and birth", as their eugenics practices would inevitably lead to them marrying well and propagating more children, not to mention displaying "higher ability, richer health, greater beauty" (314).[9] Fisher also predicted a utopian future for the human species as a whole, quoting from Nietzsche: "What to man is the ape... so shall man be to Beyond Man" (310).[10] Fisher was not alone in connecting eugenics to the Nietzschean superman. Dan Stone in *Breeding Superman* (2002) documents the links between Nietzscheans and the eugenics movement, through figures such as Maximilian Mügge, A. R. Orage and Havelock Ellis (74-7). Maximilian Mügge, writing in the first volume of *Eugenics Review* in 1909, described the idea of the Nieztschean superman as "a poetic-philosophical concept of positive Eugenics" (185). As

[9] Richard A. Soloway reports that "dedicated though they were to self-replication, officers of the Eugenics Education Society contributed on average no more than 2.3 children" (*Demography* 35).

[10] 'Beyond man' was Alexander Tille's translation of the Übermensch in his 1896 translation of *Thus Spake Zarathustra*. See Mazumdar 210, note 34.

well as linking Nietzsche's superman to eugenics, Mügge argues that creating the eugenic superman is more important than other ideals, because of its universal appeal: "it is reasonable to assume that that ideal is nearest to the absolute, which is the most comprehensive, which touches the greatest possible number of individuals, which in the long run ensures the greatest happiness of all concerned. That undoubtedly is the racial ideal, the ideal of Eugenics and the Superman" (186). He also recognised that "anthropometric measurements, statistical observations, human experiments on Mendel's Law and biological legislation" were not sufficient to generate an enthusiasm for the eugenic ideal, hence the need for what he too termed a eugenic religion with an ideal that "appeals to the unknown depths of man's mind" (190). For Mügge, that ideal was the Superman and the aspiration of creating a race of supermen "as superior to the present mankind ... as man is superior to the worm" (191).

Mügge also argued that: "We shall no longer, in choosing our mates, blindly yield to sexual attractions under the plea of 'romantic love', thus selfishly ignoring the welfare of the race" (190). Mügge's plea for a form of rational reproduction would be taken up by many women in the eugenics movement, who saw in the correct choice of marital partners an important way that women could contribute to ideals of racial improvement. Richardson traces the origins of the idea of rational reproduction to the social purity movement of the 1880s, which, she argues, biologised morality and endorsed an essentialist view of the sexual natures of men and women, according to which women were naturally moral and men promiscuous *(Love* 49). Lucy Bland's ground-breaking work on early feminism, *Banishing the Beast: Feminism, Sex and Morality* (1995) likewise argues that women were attracted to eugenics by "a promise of a new morality" and the potential scientific validation of their moral purity beliefs, as well as by their role in the "'rational control' of the nation's reproduction" as mothers and educators of the next generation (229-30). Eugenics certainly had a strong appeal for women. Richard A. Soloway notes that half the membership of the Eugenics Education Society before the First World War were women, and that forty percent of those were unmarried (128), suggesting that the message of eugenics had a practical relevance to those hoping to start married life.

In fact, women were not just passive members of the Eugenics Education Society in its early days, but the organising force behind it.[11] In an account of the formation of Eugenics Education Society in 1907, Lady Georgina Chambers makes it clear how important women were to the day to day operations of the society.[12] Chambers, who eventually became joint Honorary Secretary with Fisher in 1920, reports that she was one of a team of six female office workers (four of them unmarried), working under the direction of Sybil Gotto, the founder and first honorary secretary of the society, and that there were another four women who "undertook special jobs". Their work involved "Filing, cross-indexing and classification of subjects etc. and all routine office work". Only one typist was paid. The motivation for their enthusiasm is suggested by Major Darwin's praise of Gotto, as a woman who "by her vision, inspiration and self-sacrifice started so many wheels rolling for the benefit of the whole human race" (Chambers). Sybil Gotto (later Neville-Rolfe) was a young widow whose interest in eugenics and work with prostitutes and sufferers from venereal disease had convinced her of the importance of sex education and ensuring the eugenic quality of future generations.[13] Lady Chambers describes Gotto as having "the vision to see the effect eugenics would have once Galton's teaching permeated the mind of mankind no matter to what race they belonged" (Chambers).

The ideals behind the founding of the Eugenics Education Society can also be seen in an early draft of the Society's aims from around 1908, which states that "The Society exists to uphold the ideal of parenthood, as the highest, and most responsible of human powers; to proclaim that the racial instinct is, therefore, supremely sacred, and its exercise, through marriage, the loftiest of all privileges to be exercised in the service of the future of the race" (Eugenics Society). This form of wording evokes both religious and utopian idealism in its reference to the sacredness of the racial instinct (a euphemism for sexual appetite) and the contribution of this duty to the future of humanity. [14] In a similar

[11] See also Ann Taylor Allen who argues that "Feminists were not passive recipients, but active creators, of eugenic theory and practice" (482).
[12] This account is an unpublished document from the archives of the Eugenics Society available on the Wellcome Trust website.
[13] For further information see Richardson, "Neville-Rolfe, Sybil Katherine (1885–1955)"
[14] Bland notes that eugenicists tended to term the "sexual instinct the 'racial instinct'" (232). Saleeby, for example, describes the racial instinct as being "less rampant and less roving" in women than men (*Woman and Womanhood* 261).

vein of utopian rhetoric the Society's objectives link "spreading a knowledge of the Laws of Heredity" to "the improvement and well-being of humanity", while parenthood on the part of "the Diseased, the Insane, and the Habitually Alcoholic" was to be denounced, as "a crime against the future".[15] Neville-Rolfe's continuing belief in the importance of responsible parenthood can be seen in a 1925 article "Modern Marriage and Monogamy" where she emphasised the importance of selecting the right marriage partner:

> If the highest privilege accorded to us is that of fashioning posterity on such lines as will improve its inherent quality we must attach the greatest importance to selection in marriage. It is the gravest decision any human being takes in life as it affects not only himself and his partner, but the unnumbered ages of the future. (95)

She also called for women to select in favour of sexual continence when choosing husbands to prevent "promiscuity and social degeneracy" (93), grounding her moral arguments in anthropological and biological evidence, which, she stated, showed that "the normal channel through which we may hope to attain better inherent quality in the human race is through monogamy" (92). Neville-Rolfe also spoke favourably of marriage laws in Scandinavia and many American States which prevented marriage for those considered insane, diseased or mentally defective, arguing that similar "legal machinery" should be put in place to ensure that "the unfit, while protected for their lifetime by the community, will be denied the right of handing on their defect to others" (95). This article gives an idea of how the high idealism of marriage for the benefit of the human race, and the concept of biologically determined morality, would result by the 1920s in a focus on restrictive legislation which was far from utopian.

On the other hand, Canadian born free-love activist Stella W. Browne became involved with eugenics to campaign for birth control for those who did not wish to be mothers, arguing in a 1915 paper for the British Society for the Study of Sex Psychology that: "Absolute freedom of choice on the woman's part, and intense desire both for her mate and her child, are the magic forces

[15] Articles in *The Eugenics Review* also denounced syphilis and alcohol as "racial poisons". See J. E. Lane "Racial Poisons: 1. Venereal Disease" and C. W. Saleeby "Racial Poisons, II, alcohol".

that will vitalise and transfigure the race" ("Sexual Variety"). In a 1917 paper Browne advocated legislative support for unmarried women and their children and reform of the divorce laws, and re-iterated her belief in the eugenic benefits of women's control over their own sexuality and reproduction: "Only from 'intelligent and voluntary motherhood' can a finer and stronger race be developed" ("Race"). However, while Browne hoped to see women supported to have children whether they were married or not, she was absolutely opposed to the idea of "compulsory breeding" and did not think much of the frequent complaints in *The Eugenics Review* over "the 'selfishness' of the refusal of maternity by healthy and educated women of the professional classes" ("Birth Control"). In the aftermath of the First World War, feminist-backed schemes such as "endowment of motherhood" to promote women's ability to bear eugenically fit children would also become an anti-feminist measure to restrict women's freedom of choice over whether to become mothers.[16]

Dedication to the cause of eugenics was also evident in the female laboratory workers employed by Galton and Pearson. Women were generally paid less than men, and so represented good value when funding was limited. Rosaleen Love argues that the female laboratory workers involved with eugenics were motivated by the opportunity for "active participation in work which they believed offered the only hope for mankind" (158) and a sense of the importance of women for the future of the race (156). She claims that Ethel Elderton, who was employed as an assistant by Galton in 1906, was still underpaid in comparison to other forms of employment she could have obtained, and that it was her enthusiasm for a scientific career that led to her "to perform the work of an academic for the pay of a part-time clerk" (157). Elderton was certainly motivated by the idea of eugenics. Elissa Rodkey describes Elderton as "wholeheartedly embracing the eugenic cause" and her eugenic convictions were at the core of her scientific papers. Like Pearson, Elderton used statistical analysis to argue for the importance of heredity in areas such as alcoholism and intelligence, leading her to reject social reforms and temper her

[16] Ann Taylor Allen argues that British feminists Eleanor Rathbone, Mary Stocks and Maude Rayden who founded the Family Endowment Society in 1917 "reformulated the socialist proposal for governmental subsidies payable to mothers for child-rearing as a feminist program" (489). However, as George Robb notes, "The primacy of motherhood in eugenic schemes often caused free-love proponents to veer perilously close to the pro-natalist rhetoric of conservatives" (602).

sympathy for educational improvements with the conclusion that: “It is no use having a perfect system of education if the brains that should profit by it are decreasing in power, if men and women of intelligence are leaving fewer and fewer children to inherit their ability” (408).

However, if the ideas that motivated the female workers in eugenics and within the Eugenics Education Society and its successor organisations could be construed as utopian hopes for a better world, it is important not to underestimate the lure for women of working in an area where they believed they could contribute to knowledge or social change, as well as having a practical role to play.[17] Greta Jones shows that members of the Eugenics Society were represented on numerous committees, leading to “eugenics being an area where power was exercised or potentially could be exercised. Consequently, discussions about eugenics and formulation of eugenic ideals might have very practical consequences” (483). It is clear that women were strongly motivated by idealism in getting involved with eugenics, but also by the possibility of a role for themselves in this process. Their hopes for the future were real, but less fixed on the distant horizon of racial transformation that inspired Pearson and Fisher, and more rooted in campaigns that would make a difference to the next generation and to which they could actively contribute and see the benefits in their own lifetime. Also, it is important to note that, however genuine this idealism may have been, not all feminists were converts to eugenics. Barbara Low, covering the First International Eugenics Congress for *The Freewoman*, called eugenics “hypocritical twaddle”, finding the event self-serving and elitist. She criticised eugenicists for their “lack of understanding of their fellow human beings” and recommended organised opposition to eugenics “since at any moment we may find ourselves saddled with some monstrous Eugenic Law of the kind that Indiana and California now have in practice” (206).

Understanding the utopianism behind eugenics offers several benefits. It creates the possibility of seeing at least some of its advocates as activists and social dreamers, rather than zealots. It allows for a more complex reading of eugenicists’ debts to Darwin, Nietzsche and the scientific ideas of the late-nineteenth century. But most importantly it demonstrates a concern with the future that reflects both fears and frustration at the way society operated and a

[17] For example, female writers and activists in the late-nineteenth century were in the forefront of developing eugenic ideas of rational reproduction (see Richardson 2003).

great hope that in the future people could become rational, intelligent, moral and healthy. My thesis shows that the ideals expressed by eugenicists are also key elements in utopian and dystopian fiction. Utopian designs for the perfect society return repeatedly to methods for perfecting and improving humans through social purity, monogamy, higher forms of love, idealised parenthood, as well as by regulating marriage, and eliminating the sick and mentally disabled. Eugenics was a convenient mechanism for achieving these various utopian aims, and offered a label and a scientific license for pursuing such dreams in fiction and in society. However, at the heart of all these ideas was something larger than the scientific and legislative activities of the eugenics movement, the concept of consciously improving human nature, which I introduce in the next section.

1.3 Improving on Nature

Nature is one of the key elements of my argument as it underpins eugenic concepts but also highlights the divergence between eugenics as a practical policy, founded on what were believed to be laws of nature, and eugenics as a utopian idea, based on the concept of improving human nature. There are many definitions of nature, both considered historically and conceptually. The *OED* lists fourteen of them, and many more compound terms ("nature, n." *OED Online*). Raymond Williams, who argues that "Nature is perhaps the most complex word in the language" offers three main concepts covered by the word: "(i) the essential quality or character *of* something; (ii) the inherent force that directs the world or human beings or both; (iii) the material world itself, taken as including or not including human beings" (219). The first of these concepts includes the question of human nature, which in the late nineteenth century after Darwin is connected to a wider concept of animal nature. What works for animals can also be applied to humans, as humans, depending on the perspective of the writer are also to be seen as animals, mammals or primates. This relationship could be seen as constructive or negative, and exposes a key dichotomy in responses to the theory of evolution. For the scientifically inclined it represented a way of better understanding human behaviour by analogy with how animals behaved in the wild. For others, the close relationship between humans and animals represented a threat or challenge. H.G. Wells saw

civilisation as a thin veneer with human morality barely able to control the instincts of the unreconstructed animal.[18] The second of Williams's definitions, being more active, often gets referred to as Nature with a capital N, and is sometimes personified as female, whether nurturing mother or capricious old crone. This version of nature is also the ultimate law-giver, with fixed laws that cannot be evaded. The third definition covers external nature or the environment, and is often contrasted with culture or civilisation in that it contains the phenomena of the physical world that occur outside the sphere of human control.

The history of attitudes to nature is also important to my thesis. Carolyn Merchant in *The Death of Nature* (1980) argues that in the seventeenth century a "mechanistic" view of nature replaced older organic metaphors of nature as a living being. Instead nature became a mechanism that could be rationalised, exploited or controlled. Merchant argues that this mechanistic viewpoint made it easier to see nature as a resource for the benefit of humans. Max Horkheimer and Theodor Adorno in the *Dialectic of Enlightenment* (1944) also held the Enlightenment responsible for what they called "the disenchantment of the world" and "the substitution of knowledge for fancy" (3). This disenchantment, they argue, led to alienation from nature, and its objectification and destruction. Williams also suggests that political changes which altered nature "from an absolute to a constitutional monarch" (222) had a similar effect, leading to an emphasis on understanding the laws of nature, which could be interpreted, classified and made predictable on the basis of precedents. This idea also fed into the concept of nature as a knowable and controllable force, and the identification of nature with reason.

Concepts of mastering and controlling nature are implicit in eugenics, and often explicit in the utopian fiction I examine. However, a more significant change in attitude to nature for the purpose of this project is the move from the idea of nature as static, unchanging and unchangeable towards acceptance of the theory of evolution. In the early-nineteenth century, natural theologians had adopted Enlightenment methodology to use reason and logic to argue that everything in nature was created by God. William Paley in *Natural Theology, or Evidences of the Existence and Attributes of the Deity collected from the*

[18] See "Human evolution, an artificial process" and "Morals and Civilisation" in Philmus and Hughes *H.G. Wells: Early writings in science and science fiction* (1975).

Appearances of Nature (1802) argued that just as the complexity of a watch implied a watchmaker, so the complexity of the natural world implied a divine creator. His analogy of a watch also fits with a mechanistic view of nature, as a perfectly regulated process. Similarly, the persistence of the medieval concept of the Great Chain of Being, nature arranged in an orderly hierarchy from the simplest forms of life to divine beings, fostered an essentialist belief in the unalterable and separate characteristics of different species and supported an image of human nature as superior and qualitatively different to that of animals. Evolutionary theory reintroduced complexity into nature. The evidence of geologists and palaeontologists showed that the Earth was much older than biblical scholars imagined. Jean-Baptiste Lamarck argued that classifications into separate species were artificial and in his 1809 work *Philosophie Zoologique* offered a theory of evolutionary change based on the concept of life as a force pushing towards increased complexity. More significantly for eugenicists, Darwin's publication of *Origin of Species* in 1859 offered the hope that mechanisms for controlling nature could be derived from the network of complex interactions that he described. Darwin's observations of nature and those of his scientific colleagues informed late-nineteenth-century and early-twentieth-century assumptions about nature. They were appropriated and misappropriated by a number of social movements, including eugenics. Many of the writers of utopian fiction I discuss read Darwin and drew concepts directly from him to inform their views of utopia, or to justify their imaginings of improved people, evolving towards perfection. However, my argument is not that Darwin's *Origin*, or *The Descent of Man*, which dealt more specifically with human evolution, led directly to the ideas expressed by eugenicists. My position is informed by recent criticism that demonstrates that Darwin's work offered a far from simplistic version of nature, and was used to support a range of political positions, from Social Darwinists who used "survival of the fittest" to justify "laissez-faire" capitalism, to the anarchist Peter Kropotkin who saw Darwin's work as supporting altruism and mutual aid. Gillian Beer's *Darwin's Plots* (1983) was influential in emphasising the complexity of Darwin's thought. Beer describes Darwin's theory as "essentially multivalent" and argues that his work is "rich in contradictory elements which can serve as a metaphorical basis for more than one reading of experience" (6). George Levine in *Darwin Loves You* (2008) claims that even though Darwin began with the perfect adaptation

position of Paley, he focussed on maladaptations, looking for what did not work rather than what did (16). Richardson shows that Darwin was far from reductive in his thinking, arguing that, unlike eugenicists, "Darwin offers new ways of thinking about scale, about chance, about intimate interrelatedness. He provides models for observing the natural world, giving us narratives of growth and profusion, of thinking about *telos*, and progress" (*Love* 4). In a recent essay on Darwin's relationship with Galton, Richardson further emphasises Darwin's views on the complexity and uncertainty of heredity in contrast to Galton's "more coercive, interventionist position", arguing that Darwin's regard for freedom and individualism did not predispose him to favour eugenics ("'I differ '" 29). Levine too emphasises that Darwin's work cannot be used to support absolutely any position as his theory is "radically secular", in that it "drives towards an explanation of all things, physical and spiritual, by means of natural law" (*Darwin* 21).

It is this element of natural law in Darwin's thinking that eugenicists were prone to take up and use to support social measures. Consequently, Darwin's own definitions of nature give a valuable insight into his reading of nature. In *Origin* Darwin contrasts "the state of nature" to nature altered by humans in the form of domesticated animals or cultivated plants. He also saw nature as an agent or force for change, and therefore, metaphorically, carrying out natural selection. Nature is the source of the variations on which selection takes place and natural selection "is a power incessantly ready for action" (50). Unlike eugenicists, Darwin saw this power as being "as immeasurably superior to man's feeble efforts, as the works of nature are to those of Art" (50). Darwin also talks of the "polity of nature", meaning the areas of the world still in a state of nature, but is more reluctant to accept anything as a general "law of nature". For him, laws can only be provisional, derived from long investigation and subject to disproof. On the other hand, Darwin did apply what he calls "the doctrine of Malthus" (51) to all plants and animals, claiming that "There is no exception to the rule that every organic being naturally increases at so high a rate, that if not destroyed, the earth would soon be covered by the progeny of the single pair" (52).[19] This geometric rate of increase could only be checked by

[19] Malthus, writing in 1798 argued that "population, when unchecked, increased in a geometrical ratio, and subsistence for man in arithmetical ratio" (15), and recommended "preventive checks" to population growth through moral restraint.

an equal level of destruction, leading Darwin to emphasise a view of nature as not just “bright with gladness” but full of death: “we do not see, or we forget, that the birds which are idly singing round us mostly live on insects of seeds, and are thus constantly destroying life” (50). This view of nature as a struggle for survival was one that many nineteenth-century writers took away from evolution, as I further discuss in Chapter One.

T.H. Huxley, known as “Darwin’s bulldog” for his support of Darwin’s theory of evolution, also emphasised the destructiveness of nature. In his 1893 Romanes lecture on “Evolution and Ethics” he argued that “In every part, at every moment, the state of the cosmos is the expression of a transitory adjustment of contending forces; a scene of strife, in which all the combatants fall in turn” (49). Huxley was troubled by “the moral indifference of nature” (59), and called for the curbing of the cosmic process and the substitution of what he called “the ethical process” to ensure the survival of those who were “ethically the best” (81). Huxley’s view of nature as a source of pain and strife led him to argue that it was necessary to “set man to subdue nature to his higher ends” (83). For him, social progress required modifying “the conditions of existence” in a long battle against nature using “intelligence and will, guided by sound principles of investigation” (85). Huxley’s sense of nature as ultimately unbeatable turned nature into an adversary which it was morally defensible to oppose. This view of nature as dangerous was one which is very evident in the utopian fiction of the late nineteenth century.

Galton was also influenced in his view of nature by reading Darwin’s *Origin*, but he accepted the harshness of natural selection as beneficial to humans: “In strength, agility, and other physical qualities, Darwin's law of natural selection acts with unimpassioned, merciless severity. The weakly die in the battle for life; the stronger and more capable individuals are alone permitted to survive, and to bequeath their constitutional vigour to future generations” (“Hereditary Talent” 323). For him, natural selection was not a theory but an absolute law which joined with the “Law of Heredity” to make nature knowable. Galton saw no contradiction between human nature and animal nature, and had no doubts about natural selection also being applicable to moral characteristics. For example, he argued that deficiency in sexual, parental, filial or social affection “would be a serious hindrance, if not a bar to the continuance of any race” (Hereditary 323). Galton was also responsible for popularising the binary

terms of nature and nurture in *English Men of Science: their nature and nurture* (1874). For him “Nature is all that a man brings with himself into the world; nurture is every influence from without that affects him after his birth”, with nature being “the stronger of the two” (12-16). In this way, Galton equates nature with heredity or, as it would later be called, genes. Biological determinism of the sort represented by Galton was rife in eugenics, and the so-called laws of nature were often applied simplistically to social issues. Madison Grant’s racist manifesto *The Passing of the Great Race* (1916) called on the laws of nature to justify his claim that “race lies at the base of all manifestation of modern society” (xxi). American eugenicist Charles Davenport, arguing for eugenic sterilisation, considered the number of disabled people, criminals and paupers being supported by the state as a reproach to America’s otherwise proud ability to control nature (4). Nature, in both cases, was seen as a simple scientifically knowable force to be controlled by rational thought, offering laws that could be applied directly to society.

Another consequence of the biologisation of concepts of human nature was a greater emphasis on the biological aspects of women’s roles. Caleb Saleeby discussed the principles of what he referred to as “Eugenic Feminism” in *Woman and Womanhood*, his 1911 book on the eugenic duty of women (7). He argued that feminism was biologically a mistake since women were “constructed by Nature, as individuals, for her racial ends” (14) and that the best interest of women would be served through marriage and motherhood, or in discharging “characteristically feminine functions” such as nursing or teaching (18). Women’s reproductive role often caused women to be seen as more “natural” beings than men, with negative consequences to their social standing. Merchant argues that “Because women’s physiological functions of reproduction, nurture and childrearing are viewed as closer to nature, their social role is lower on the cultural scale than that of the male” (*Death* 144). Merchant and other ecofeminists therefore see a conceptual link between the domination of nature by humans, and the domination of women by men. However, as I argue, nineteenth-century feminist writers of utopian fiction complicate this picture by aligning themselves with rationality and moral superiority over nature, a position which ecofeminist Val Plumwood critiques as

maintaining a dualistic account of human nature as separate from nature.[20] At the same time, the dichotomy between sexual desire, seen as a masculine prerogative, and reproduction, resulting from sexual acts, made it seem urgent for women to take control of their reproductive life. Sex was often represented as a natural necessity by men, based on "the assumption that sexual energies had to be discharged if health was to be maintained after puberty" (Rosenberg 78). Charles Knowlton in *Fruits of Philosophy* (1832), controversial for giving information on contraceptive devices, noted that "In spite of preaching, human nature will ever remain the same; and that restraint which forbids the gratification of the reproductive instinct will avail but little with the mass of mankind" (13). But if sex was natural, it was also seen as brutish or animal. John Noyes, founder of the Oneida Community, a utopian religious commune known for practising an early form of eugenics, developed a system of male continence to enable sexual intercourse without procreation, arguing that: "it is perfectly proper that we should endeavour to rise above "nature" and the destiny of the brutes in this matter" (*Male* 6). Feminist Henrietta Muller, writing in 1884, agreed that "self-control represented the basis of all moral life and ... the characteristic which distinguishes humanity from the rest of the animal world" (qtd. in Bland 164). On the other hand, methods of preventing conception, such as those described by Knowlton, were also seen as brutalising by encouraging excessive indulgence in sex and, as Bland describes, pushing "men and women back to an evolutionary stage of 'brute' existence in which sexual intercourse was devoid of the higher feelings of love and monogamous emotional commitment" (197). All these pressures led to a desire to see improvements in the reproductive life of women, expressed strongly in utopian fiction as a desire for chastity or asexual reproduction and the development of a civilisation where women could operate benign control over nature, as discussed in Chapter Two and Chapter Three.

Fredric Jameson argues that the rediscovery of ecology shows nature as not humanly constructed, but asks "whether this particular Nature ... is in any way to be thought of as somehow the same as that older 'nature' at whose domestication if not liquidation all Enlightenment and post-Enlightenment thought so diligently worked" (47). He sees it as nature with limits and restraints,

[20] See Victoria Davion "Is ecofeminism feminist" (13).

as opposed to the Prometheanism of earlier constructions (47-8). A similar change can be traced in the ideas of eugenicists who started out with utopian ideas of altering the human race through mastering the laws of nature and ended up hoping to restrain reproduction in order to preserve nature. G.C. L. Bertram, writing in *The Eugenics Review* in 1951, linked eugenics to ecology in order to argue for population control, claiming that the ability to control reproduction was one of the factors which distinguished humans from other animals (15). For him, eugenics was closely related to human ecology, the main difference being that "Eugenics encompasses not only knowledge but a purpose as well - to improve the inborn qualities of people" (11). Even reconfigured as human ecology, and distanced from enforced sterilisation or Nazi hate crimes, the discourse of eugenics asserts a need to change and mould nature, rather than to understand and appreciate it. On the other hand, eugenics always involved a concept of humans as natural creatures and looked to principles from agriculture, biology and ecology to further its aims. Nature was never an artificial construct to be dominated, but a complex reality, which if mastered might lead to evolution beyond the present limitations of the human condition, a desire which pervaded much of eugenic thinking.

1.4 Argument and Methods

My thesis pulls together the three strands discussed above: the relationship between eugenics and utopian fiction, the dangerous utopianism of eugenic ideas, and the desire to adopt nature's rules to advance human progress. I argue that eugenics is more utopian than is usually believed, and that the utopianism that motivated the early supporters of eugenics did not disappear after the Second World War. I claim that the analysis of eugenics as utopian idea through its manifestations in utopian fiction is important for understanding what is inherently problematic about the idea of eugenics and what can be learned for dealing with future incarnations of ideas of conscious genetic enhancement. I also see this discussion of the intersection between eugenics, utopianism and domination of nature as a valuable contribution to contemporary debates on the relationship between women and nature and the position of human aspirations of conscious improvement in a post-humanist world.

The time-period under consideration in this thesis runs from the 1870s to the 1970s, tracing eugenic thought in utopian fiction from initial reactions to Darwin's *Origin of Species* through to a resurgence of utopianism in the 1970s and the belated demise of eugenic sterilisation some three decades after the Second World War. Taking into account a variety of voices, male and female, European and American, utopian and dystopian, the study aims to reintegrate eugenics into the wider context of utopianism and offer an in-depth exploration of how eugenic ideas contribute to the overall utopian vision of late-nineteenth-century and twentieth-century writers. By exploring connections between utopian and dystopian works, my study exposes a sense of confusion among contemporaries over the perceived beneficial and harmful aspects of eugenics, and shows how some works which seemed to advocate eugenics were aware of its negative aspects, while others presented eugenics as a desirable aspect of an imagined future. This thesis also offers new perspectives on gender issues in eugenics by examining feminist utopian fiction by women writers alongside works written by men, in order to understand where ideas over women's role in eugenic improvements offer a degree of cross-gender consistency and where these ideas diverge. The century-long time-period of my study also provides the opportunity of demonstrating the persistence, within utopian fiction, of ideas of consciously moulding human nature to create better citizens. It also makes it possible to examine how the concept of eugenics changes between the nineteenth century, when eugenics was still in its early stages, and the twentieth century, when many writers were ambivalent about labelling their ideas as eugenics or consciously aligning themselves with the eugenics movement. The variety of approaches to eugenics and the different motivations behind the desire to bring about changes to the quality of the population revealed by this study of eugenics in utopian fiction provide a significant addition to existing social, political and cultural studies of the eugenics movements, and aid in understanding the impact of eugenics on imaginative representations of the future.

The works I have chosen to analyse have been selected for their representation of a significant and conscious interaction with eugenics or other scientific or evolutionary discourses that fed into eugenics. My approach to this research project has been to read the treatment of eugenics in the texts I study within the context of other ideas and explore connections to contemporary

thought. This study is organised in chronological order to show how following a specific strand of utopian thought such as eugenics can illustrate changes in the perception of that discourse, but also how certain ideas persist even as the terms in which they are expressed changes. Each chapter examines several texts to allow for the variety and specificity of utopian literature, which as a genre is formulaic in its structure, but idiosyncratic in its detail. The project therefore includes popular texts with huge impact, alongside more obscure texts. This approach allows me to be clear that the trends I discuss have a broad validity, while examining what the unique testimony of individual utopias indicate about popular reactions to eugenics, and the role of eugenics in the conceptualisation of utopian and dystopian worlds.

I begin my study in Chapter Two by addressing the question of the relationship between evolution and eugenics through looking at the interpretation of Darwin's theory of evolution within late-nineteenth-century utopian fiction. I demonstrate that the cultural impact of *Origin of Species* and *Descent of Man* led to a need to find alternatives to the "cosmic pessimism" and fears of degeneration that arose as a result of the idea of evolution. I consider how Darwin's theory was read or misread by his contemporaries through an analysis of Samuel Butler's satirical interpretations of evolution in his early works, beginning with the essay "Darwin Among the Machines" (1863), and culminating in "The Book of the Machines" , a section of *Erewhon* (1872) which envisages a future where humans are enslaved by machines. However, *Erewhon* also proposes a materialist morality based on strength, beauty and good luck, which anticipates elements of the eugenic utopianism promoted by Galton. Butler subsequently developed his own theories of evolution and engaged in a long dispute with Darwin and the rest of the scientific community to try to restore ideas of intentionality and purpose to evolution. In discussing this dispute I draw on recent research on Darwin to emphasise the complexity of Darwin's ideas and the social factors that influenced Butler's hostile interpretation of Darwin's theory of evolution. By contrast, in America, Edward Bellamy developed a more optimistic interpretation of Darwin's evolutionary theory for his best-selling work of utopian fiction *Looking Backward* (1888). Bellamy adopted Darwin's ideas of female sexual selection from *The Descent of Man* to support a more positive view of human nature and a future based on shared wealth, mutual compassion and altruistic support.

In Chapter Three I focus on the biological and eugenic implications of late-nineteenth-century feminist utopias in the UK and the US, in particular the tension between women seen as being in touch with nature, and the aspirations within these societies to transform or transcend the biological determinism of women's reproductive role. I look at the relationship between women and science and argue that, despite negative constructions of women's nature by male scientists, science offered hope for improvements to women's role in society. Late-nineteenth-century feminist utopias anticipate feminist interest in eugenics through proposals to regulate marriage, improve the health of the population and free women from the demands of sex and constant pregnancy. These feminist utopias also show the interest in separatism and a tendency to accept the binary of women as intrinsically moral and men as immoral. Elizabeth Corbett's *New Amazonia* (1889) argues that a state run by women would necessarily achieve high moral standards, while the application of common sense and scientific control over nature would lead to an improved standard of living. Mary E. Bradley Lane's *Mizora* (1880-81) proposes an entirely separatist world where the elimination men, following the development of an asexual process of reproduction, would lead to moral improvement and a perfect society. Alice Ilgenfritz Jones and Ella Merchant's *Unveiling a Parallel* (1893) on the other hand questions the intrinsic immorality of men, showing a role reversal utopia where women behave as badly as men given the same societal freedom. Instead, evolution to a higher morality is seen as a task for both men and women through spiritual evolution, anti-materialism and chaste love.

Chapter Four engages with applications of evolutionary theory to society in the works of Charlotte Perkins Gilman. I argue that Gilman's theory of social evolution disputes some of the reductionist assumptions of eugenics by incorporating education and other environmental factors into its framework, demonstrating that for her eugenics is just one amongst many measures to bring about social improvement. However, Gilman's proposals still require the sacrifice of the rights of the individual to the future good of society. Gilman's early work of social theory *Women and Economics* (1898) uses evolutionary theory to support her claim for a more equal relationship between men and women, based on companionship rather than excessive sexual attraction. Her three utopian novels *Moving the Mountain* (1911), *Herland* (1915) and *With Her*

in Ourland (1916) show faith in women's ability to change the world through education, mutual support and selecting the right husbands. Gilman also promotes the importance of women's responsibility for preventing the transmission of sexually transmitted diseases to the next generation. Gilman's Neo-Lamarckism meant that she never entirely agreed with the hereditary determinism of eugenics, and her own personal issues with motherhood made her wary of eugenic schemes to encourage motherhood. Her engagement with racial issues also offers the opportunity to examine the role played by racial prejudice in the US eugenics programme.

In the fifth chapter, I turn to dystopian fiction to explore the role of eugenics in early-twentieth-century hopes and fears for the future. I argue that eugenics functions as a symptom of the prevailing scientism, the belief that scientific progress is more important than individuals. H. G. Wells's dystopia *When the Sleeper Awakes* (1899) looks at the dangers of scientific progress without ethics, and of capitalism treating humans as resource for profit. The chapter also addresses Wells's own ambivalence over eugenics and his early engagement with the idea of the Nietzschean superman. The dystopian fiction of the 1920s and 1930s likewise dramatises the debate over scientific progress and mechanisation versus individual rights. Yevgeny Zamyatin's *We* (1924) and Aldous Huxley's *Brave New World* (1932) both present chilling versions of the scientific state turning people into machine components in the name of stability. Charlotte Haldane's *Man's World* (1926) is more ambiguous in its critique of the inhumanity of the scientific state. The state's cult of motherhood places women in charge of improving the race through determining the qualities and gender of their children, but it turns motherhood into an all-consuming sacred vocation, requiring women to choose between motherhood and career, with compulsory sterilisation for those who are not going to be mothers. Kathryn Burdekin's *Swastika Night* (1937) combines the cult of the mother with Nazi ideology to imagine women reduced to breeding animals in a male-dominated society. However, Burdekin represents the women as still able to exercise biological power by no longer bearing female children. The chapter demonstrates the importance of reproductive control and scientific progress in the early-twentieth-century dystopia and the appeal of eugenics as well as its dehumanising effects.

Chapter Six contributes to recent scholarship that shows that eugenics did not disappear after the Second World War. I argue that the environmental utopianism of “ecotopias” proved hospitable to ideas of eugenics and to related discourses of reproductive control to limit populations. Despite the contradictions between the scientific instrumentalism of eugenics and the rights of nature, both eugenics and environmentalism share a viewpoint of nature as a real force in the world at odds with the post-war shift towards cultural constructivism. When B. F. Skinner wrote *Walden Two* in 1948 he took inspiration from Henry David Thoreau’s environmental classic *Walden* (1854) to re-imagine utopianism after the traumas of fascism. However, he continued to see behavioural conditioning and eugenics as important to this vision despite their implication in the totalitarian regimes of World War Two. Aldous Huxley’s *Island* (1962) shares spiritual values with the deep ecology movement and opposes population growth on environmental grounds, but Huxley continued to express concerns over declining IQs, and the citizens of his utopia use Artificial Donor Insemination to establish a voluntary eugenics programme. Both Skinner and Huxley diagnosed the needs of the post-war world as small-scale communities living in harmony with nature combined with conditioning to ensure resistance to dictators and undesirable cultural trends, along with the reconfiguration of the family to allow for experiments in improving intelligence. Ernest Callenbach’s *Ecotopia* (1975) rejects eugenics, cloning or other forms of genetic modification in favour of more natural forms of population improvement through female selection of appropriate fathers and masculine displays of strength through ritual War Games. A conscious reversion to Native American Indian tribal values underpins the environmental ethics and love of nature in *Ecotopia* but also justifies controlling population levels and implementing exclusionist anti-immigration policies.

The concluding chapter examines two main areas of concern exposed by my study of eugenics in utopian fiction. The first is women’s role in reproduction and the desire to separate procreation from sexual activity. The second is about the implications of creating more perfect versions of humans and whether this is possible without destroying what it means to be human. I conclude by considering why fictional representations of eugenics continue to resonate in the twenty-first century.

Reading eugenics and utopianism together offers the opportunity to see how the eugenic ideas of human self-improvement through breeding for better people and eliminating the factors that impede their social utility came to inspire such fervent and deadly devotion in the early decades of the twentieth century. The utopian and dystopian fiction of the late nineteenth century and onwards can show more than just the rise and fall in enthusiasm for eugenics, but also how eugenics connected to a range of other ideas for making better people, whether through healthy lifestyles, education, moral improvement, spiritual development or improved social institutions. In fictional utopias there are no barriers to experimenting with ideas of what people might become, or imagining how science might aid in transforming real people into model citizens, and they therefore offer a fertile ground for exploring the apparently beneficial ideas that led to so many eugenic atrocities.

2. Darwin Among the Utopians

H.G. Wells recognised when he came to write *A Modern Utopia* (1905) that the whole idea of utopia had been changed by Darwin's *The Origin of Species* (1859) and the subsequent debates over evolution and its mechanisms, leading him to declare, famously, that "The Modern Utopia must be not static but kinetic..." (11). Wells saw that evolution meant that people could no longer hope to reach a state of utopian bliss that would be final and unchanging, whilst living in a world designed not by God but by the adaptive forces of natural selection. The "modern utopia" Wells describes would instead exist in the context of "a world of uncertain seasons, sudden catastrophes, antagonistic diseases, and inimical beasts and vermins" (12) where nature had been rewritten as a battleground. In this chapter I look at the impact of Darwin's theory of evolution through natural selection on the utopian fiction of the 1870s and 1880s, in particular Samuel Butler's *Erewhon* (1872) and Edward Bellamy's *Looking Backward 2000-1887* (1888). In the first section of the chapter I demonstrate that interpretations of the theory which stressed struggle, competition and extinction led to an element of ambivalence in the imagining of utopia during the 1870s and 1880s and uneasiness over the future path for the development of human beings. The kind of questions suggested by Darwin's *Origin* were explored in depth by Samuel Butler in "The Book of the Machines", a section of *Erewhon* involving a debate over the evolutionary advantages and disadvantages of humanity's reliance on machines. I argue that the idea of machine consciousness allowed Butler to speculate on the more disturbing elements of the struggle for existence and extinction of species. Butler's engagement with Darwin's theory of evolution is also evident elsewhere in *Erewhon*, where Butler uses satire and the reversal of commonplace ideas to explore how humans might ensure evolutionary success through their own efforts. These ideas foreshadow Butler's own theory of evolution based on memory and habit, developed during the 1870s and 1880s, which resulted in a bitter dispute with Darwin over the role of natural selection. In exploring this dispute I show that Darwin's theory of evolution, although often misread by his contemporaries, was more complex and nuanced than its representation in British utopian fiction of the late nineteenth century would suggest.

However, by the end of the 1880s, utopian fiction had found a new lease of life through the success of Edward Bellamy's *Looking Backward*. Bellamy offered an altruistic interpretation of evolution, based on co-operation and love, which enabled him to reintroduce a more positive version of the future to utopian fiction. Bellamy's ideas on sexual selection by women were related to Darwin's own observations on the importance of female choice, and offered a more reassuring route to species improvement than degeneration and eventual replacement by the inhuman victors of the struggle for survival. Moreover, Bellamy's commitment to equality and solidarity fostered an inclusiveness that aligned evolutionary benefit with the community rather than the individual, giving everyone a stake in the evolutionary future. I conclude that the intense engagement with Darwin's theory of evolution by natural selection, and the desire for more teleology in evolution, resulted in writers of utopian fiction investigating alternatives to natural selection, including selection of marital partners for health and other desirable traits which would prefigure the concerns of the eugenics movement.

2.1 Survival of the Fittest: Evolution in Utopian Fiction

Samuel Butler was an early admirer of Darwin's *Origin of Species*. He read the book not long after he arrived in New Zealand in 1859 and became so obsessed with it that he wrote a series of letters to the local paper, under a number of pseudonyms, debating its finer points. Perhaps it is not surprising that the message he took from the work was that of constant warfare between competing species for limited resources; after all, the evidence was all around him in everyday life in New Zealand where native species were coming under attack from the animals brought over by the European colonists. In "Darwin on the Origin of Species", Butler's first letter to the Christchurch Press in December 1862, he wrote:

> Remember the quail; how plentiful they were until the cats came with the settlers from Europe. Why were they so abundant? Simply because they had plenty to eat, and could get sufficient shelter from the hawks to multiply freely. The cats came, and tussocks stood the poor little creatures in but poor stead. The cats increased and multiplied because they had plenty of food and no natural enemy to check them. (158)

In this letter, Butler summarised succinctly what he saw as the main arguments of *The Origin*: in the battle for survival, the weak will go to the wall and the strong will survive, leading to species improvement. He asserted that: "The great agent in this development of life has been competition. This has culled species after species, and secured that those alone should survive which were best fitted for the conditions by which they found themselves surrounded" (161). When Darwin came across a copy of Butler's dialogue soon after its publication, he wrote to the Editor of the newspaper to commend it as being "remarkable from its spirit & from giving so clear & accurate a view of Mr. D^{s}. theory" (Darwin Correspondence Project, "Letter no. 4058").[21] Darwin may of course have been impressed that even in the new colonies they were talking about his theory, but it is interesting that Darwin appears to have found nothing wrong with Butler's emphasis on competition as the engine of evolution, even though he gave a significant role to social instincts in *The Origin* and would emphasise these again in *The Descent*. Butler's piece is full of words like "conquest", "collisions", "culling", "warfare" and "struggle". On this reading, there is no hint of co-operation or altruism, simply individuals "selfishly striving" to hold their ground. It is a very un-nuanced view of natural selection, which leaves out Darwin's own caveat in the *Origin* that the "Struggle for Existence" was a metaphor for a number of processes and dependencies which did not necessarily involve direct competition. However, it was very common for contemporaries to reduce Darwin's message to the simple catchphrase "survival of the fittest", a term coined by Herbert Spencer, which Darwin himself did not use until the fifth edition of *The Origin* (Claeys 223).

Writers of utopian fiction were no exception to this interpretation of Darwin's theory. For example, Ellis James Davis, in the utopian novel *Pyrna: A commune; or, under the ice* (1875), set in a vigorous but chilling society below the ice of a Swiss glacier, regards natural selection as an absolute law, synonymous with survival of the fittest:

> Everything that hath existence obeys one law – a law which has no limit, and knows no mercy. While nature lasts, while the world exists as it does now, that law will bind in its rigid clasp all created things. That law is

[21] Darwin was sent a copy of the article anonymously, and the letter was probably written in 1863. For further information see Darwin Correspondence Project.

> called by you the law of natural selection, or the Survival of the fittest. (49)

The people of Pyrna also believe that disease is nature's way of purging the weak who must suffer and die "in order that superior may take the place of inferior forms" (49). Davis, a barrister who wrote four fantastical novels during the 1870s (Clute and James), blames civilisation for its role in protecting the weak, and advocates painless death for any children born with deformities, as well as euthanasia for the sick, and punishment for those with incurable diseases. Davis's narrator, a traveller who falls into the world below the glacier, at first deems these measures "barbarous", but becomes reconciled to the children of Pyrna being "sacrificed to their scientific theory of the improvement of the population" once he discovers that only one in a thousand is affected due to the excellent general health of the population (51). However, Davis does not offer unqualified approval of the way of life in Pyrna. Although the narrator is at first very impressed by the splendour of this hidden world, eventually the mixture of Social Darwinism and eugenics leads to a crisis in his approval and he begins to find fault with Pyrna, judging the women unattractive, the sub-zero temperature and diet of canned meat unenticing and the burial ground full of frozen corpses creepy. It reads as if Davis has scared himself with his extrapolation of the implications of Darwin's theory, and discovered that he was not as fond of the idea of species improvement and superior forms as he was at the start of the book.

At least *Pyrna* carries some kind of conviction as a utopia. There is a good education system, equality for women (though no role in government) and a society organised around a concept of love. By contrast, in *The Coming Race* (1871), Edward Bulwer-Lytton's satire on utopian ideas, the inhuman superiority of the underground race of Vril-ya leaves little room for admiration. They may have limitless power, through the use of the miracle energy source Vril, but just like their strong and capable women, they represent a threat, not a model to be emulated. *The Coming Race* uses the utopian form to satirise America, the New Woman, democracy and Darwinism.[22] Although Bulwer-Lytton mocks contemporary evolutionary debates by arguing that the Vril-ya were descended

[22] Bulwer-Lytton wrote in a letter to his son: "I think you will like its solemn quiz on Darwin and on Radical politics" (qtd. in V. Lytton 468).

from frogs (139-43), he still sees competition and struggle as central to racial improvement:[23]

> Wherever goes on that early process in the history of civilisation, by which life is made a struggle, in which the individual has to put forth all his powers to compete with his fellow, we invariably find this result—viz., since in the competition a vast number must perish, nature selects for preservation only the strongest specimens. (119)

The Vril-ya are depicted as the elect of evolution who are "destined to return to the upper world, and supplant all the inferior races now existing therein" (120). This legend shows that Bulwer-Lytton did not hesitate to apply Darwin's theory of natural selection and the struggle for life to the history of human civilisations. Unlike Darwin who wrote about inter-species competition in very concrete, observational terms, with no set outcome, Bulwer-Lytton turned the process into an absolute law by which there was a direct relationship between the intensity of struggle and the level of progress. In his personal correspondence, Bulwer-Lytton emphasised his fatalistic view of evolution, writing that "The only important point is to keep in view the Darwinian proposition that a coming race is destined to supplant our races", resulting in a race that would be "deadly to us, not from its vices but its virtues" and "extremely dull" (Qtd. in V. Lytton 465, 468).

Gillian Beer in *Darwin's Plots* addresses the issue of why so many of Darwin's contemporaries misread Darwin's "struggle for existence" and concludes that despite Darwin's attempts at emphasising the metaphorical nature of the struggle "his trouble went for nothing, since so many of his contemporaries ignored such velleities and approximated the struggle for existence to Spencer's "survival of the fittest" (53). One of the problems, I would argue, is that although Darwin makes it clear that the struggle for existence is meant to be read as a metaphor, its frequency within the text encourages a literal view of struggle. Moreover, Darwin applies the concept of struggle to processes that are not conventionally seen as struggles. For example, he wrote:

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[23] There have been different interpretations of Bulwer Lytton's engagement with evolution. Jennifer Judge argues that Bulwer-Lytton uses the image of the giant frog to satirise both evolutionary debates and materialist philosophy (144). However, Ann-Barbara Graff observes that "Bulwer-Lytton uses Darwin's new theory of evolution to buttress his very conservative notions about the natural order of society and to call for a retreat from social change" (41).

> What a struggle between the several kinds of trees must here have gone on during long centuries, each annually scattering its seeds by the thousand; what war between insect and insect – between insects, snails and other animals with birds and beasts of prey – all striving to increase, and all feeding on each other or on the trees or their seeds and seedlings, or on the other plants which first clothed the ground and thus checked the growth of trees! (*Origin* 62- 63)

One of the reasons for this emphasis was that in order to support his theory Darwin needed to make the struggle for existence into a driver for natural selection, so he used language that turned nature into a battleground, adding intentionality into processes that are often quite passive or non-aggressive, such as the growth of trees or foraging for food. Even the famous tree of life, which symbolises Darwin's understanding of the interconnections that make up the ecosystem, is not exempt from the language of struggle: "At each period of growth all the growing twigs have tried to branch out on all sides, and to overtop and kill the surrounding twigs and branches, in the same manner as species and groups of species have tried to overmaster other species in the great battle for life" (106).

Besides, *The Coming Race* and *Erewhon* were both written before the publication of Darwin's *The Descent of Man* (1871), which altered the emphasis of natural selection by including chapters on the importance of social instincts and sympathy in animals. Also Butler's, Bulwer-Lytton's and Davis's reading of Darwin took place in a social milieu where "survival of the fittest" had a general currency which went far beyond Darwin. As Gregory Claeys notes, "much of what we associate with the concept had been in formation for over half a century by the time the *Origin of Species* appeared in 1859" (228). However, late-nineteenth-century utopian fiction demonstrates how rapidly "survival of the fittest" came to be associated with Darwin's theory of evolution, and how important referencing evolution was for the scientific credibility of any future world. The emphasis on the "struggle for existence" and the idea of being superseded by a superior species meant that the impact of evolution on utopian fiction led to ambivalence over the direction of utopia, as can be seen from a closer examination of the works of Samuel Butler.

2.2 Butler Among the Machines

Bulwer-Lytton's reservations about evolutionary models of progress are aptly expressed by Jennifer Judge's characterisation of the coming race as a species that has "mechanized volition and morality, gutted sympathy, and lobotomized thought" (151). Samuel Butler too read Darwinian evolution as presenting a very mechanistic view of nature. In "Darwin Among the Machines", another article written for the Christchurch Press (1863), Butler applied the language and concept of evolution to machines, and posited the evolution of machines into a superior race. In doing so, Butler makes overt what Lytton hints at in his description of the Vril-ya as invariably moral, and emotionally neutral, that the attributes of a superior race are similar to that of a machine:

> No evil passions, no jealousy, no avarice, no impure desires will disturb the serene might of those glorious creatures. Sin, shame, and sorrow will have no place among them. Their minds will be in a state of perpetual calm, the contentment of a spirit that knows no wants, is disturbed by no regrets. Ambition will never torture them. Ingratitude will never cause them the uneasiness of a moment. ("Darwin" 182-183)

Butler's reading of evolution as an ultra-competitive process led to him proposing that the machines must be destroyed for the sake of the survival of our own species. However, by depicting machines as the coming race, Butler managed to make the concept of advanced evolutionary beings inherently ridiculous.[24]

"Darwin Among the Machines" and a subsequent essay, "Lucubratio Ebria" (1865), which argued that mechanical appliances like sticks, glasses or railway trains might be considered as part of humanity's evolutionary development, were rewritten to form "The Book of the Machines" in *Erewhon*. This three-chapter digression towards the end of *Erewhon* was the earliest section to be written and supplied the justification for the defining factor of Erewhonian life, the outlawing of all machinery. As well as being resonant for a modern reader in its predictions of the development of artificial intelligence, and ideas of machine consciousness, "The Book of the Machines" is valuable for

[24] There is often a tension in Butler's writing between his desire to satirise and his serious points. David Gillott in a recent thesis on Samuel Butler quite justly notes that "one of the problems in writing about Butler is knowing when to take him seriously" (9).

showing the kind of questions that were being raised in response to Darwin's work by contemporary readers, especially one as exacting as Butler. The "Book of the Machines" also demonstrates how Butler takes Darwin's theory of natural selection as a starting point for speculating on other mechanisms of evolutionary selection as he begins to develop a more Lamarckian theory of evolution through will and cunning.

"The Book of the Machines" is written in the form of a summary of the debate which led to the Erewhonian anti-machine revolution. Butler first investigates the plausibility of machine consciousness. Darwin's *Origin of Species* promotes the idea of the evolution of life from one form to another; but for Butler, evolution was not sufficient without an understanding of first causes, and so he asks whether "when the earth was to all appearance utterly destitute both of animal and vegetable life" anyone could have predicted the evolution of life on this "seeming cinder" (*Erewhon* 198)? Butler argues that, if two types of life, plant and animal, could develop, apparently spontaneously, then why not a third? He highlights the mechanical elements in all forms of life, from a plant trapping a fly to a boy growing when kept adequately supplied with food and drink. Life is "a winding up process … [g]iven earth, air, and due temperature, the plant must grow...." (200). Although this mechanistic view of life is very different from Darwin's representation of biological life as full of randomness, competition and waste, Butler manages to co-opt Darwin into his argument by evoking the "struggle for existence". However, Butler's version of the struggle for existence contains an element of Lamarckian striving, as his description of purposive growth processes in a potato demonstrates: "I will have a tuber here and a tuber there, and I will suck whatsoever advantage I can from all my surroundings.... He that is stronger and better placed than I shall overcome me, and him that is weaker I will overcome" (201). It is clear, as David Amigoni puts it, that "Butler was all the time dissolving the theoretical coherence and exclusiveness of natural selection, and melding it with a conception of mind-guided adaptation and inheritance" ("Written" 102).

Butler also argues that all human actions are just as pre-determined as those of a machine, maintaining that although we are unable to see all the forces coming into play, human behaviour is as predictable as the result of combining a set of chemical compounds. However, there are far too many "human combinations" to observe the regularity of laws of human behaviour, as

"[o]ur registry of results must be infinite before we could arrive at a full forecast of future combinations" (218). Butler was not alone in this supposition that human behaviour would be predictable if only we had all the data. As George Levine notes, this was a view held also by John Stuart Mill and other "rigorously inclined thinkers" (*Darwin and the Novelists* 92).[25] Galton too was convinced that "man is little more than a conscious machine, the slave of heredity and environment, the larger part, perhaps all, of whose actions are therefore predictable" (*Memories* 216). Butler later takes this line of speculation to its logical conclusion by proposing the idea that humans might in fact be no more than giant wind-up toys:

> If, then, men were not really alive after all, but were only machines of so complicated a make that it was less trouble to us to cut the difficulty and say that that kind of mechanism was "being alive," why should not machines ultimately become as complicated as we are, or at any rate complicated enough to be called living, and to be indeed as living as it was in the nature of anything at all to be? (*Unconscious* 14)

Butler concludes that either it has to be admitted that the definition of consciousness is broad enough to encompass the type of consciousness possessed by machines, or failing that, since animals obviously evolved from non-conscious organisms, "there is no a priori improbability in the descent of conscious (and more than conscious) machines from those which now exist" (*Erewhon* 202).

Having established that machines could be seen as being conscious, or able to develop consciousness, Butler looks at how their evolution might proceed. Firstly he predicts that machines might develop the capacity to hear and speak. The potential for natural selection to eventually turn animal sounds into language is implicit in Darwin's work, but was disputed by Max Müller, who in *The Science of Language* (1861) claimed that "no process of natural selection will ever distil significant words out of the notes of birds or the cries of

[25] Mill wrote "And though things do not really revolve in this eternal round, the whole series of events in the history of the universe, past and future, is not the less capable, in its own nature, of being constructed *a priori* by any one whom we can suppose acquainted with the original distribution of all natural agents, and with the whole of their properties, that is, the laws of succession existing between them and their effects: saving the far more than human powers of combination and calculation which would be required, even in one possessing the data, for the actual performance of the task" (*System* 250-1).

beasts", and saw language as the chief distinguishing feature that separated man from other animals (490). Butler had no difficulty with the concept that the language of machines might one day be "developed from the cry of animals to a speech as intricate as our own" (*Erewhon* 203).[26] In fact, Butler favoured a form of vitalism which, as Hans-Peter Breuer argues "led him to invest all matter with an increment of mind" ("Samuel Butler's 'The Book'" 366).

Butler also examines the potential for machine reproduction, and in so doing develops the argument that human intervention in reproduction is more effective than the random action of nature. Butler moves from anthropomorphic regrets that "we are never likely to see the fertile union between two vapour-engines with the young ones playing about the door of the shed" (Erewhon 210) to a cleverly argued piece of machine natural history, which draws strongly on Darwin's writing on insects in Chapter VII of *The Origin of Species*. Here Butler maintains that although the reproductive cycle of the machine might not be the same as ours, machines are already involved with the production of machines, and in fact the role of humans could be seen as analogous to the role of bees in fertilising plants. Although Butler did not go as far as suggesting the idea of self-replicating machines which would gain currency in the late twentieth century, he was shrewd enough to see that the idea of machines reproducing themselves was not only possible, but was in fact already happening. His account also gives more autonomy to the machines than that of the natural theologian William Paley, who, while proposing for analogical purposes that a watch could reproduce itself, saw one ultimate designer at work, rather than the evolving design of innovations and false starts that is behind Butler's re-conceptualisation of the natural history of machines.[27]

Butler also looks at the interdependence between humans and machines, asking if the eye is "but a machine for the little creature that sits behind in his brain to look through?" (205). Butler's speculations address questions of where the boundaries between human and machine lie, and whether humans as a species can even be said to exist outside the long-standing symbiosis with

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[26] See also Samuel Butler's "Thought and Language" in which he questions many of Max Müller's assumptions about what constitutes language, and argues that animals think reason and communicate without words but using a consistent code of symbols in a similar way to humans.

[27] Breuer argues that Butler avoids the necessity of final causes by realising that Paley's watch could be the result of gradual improvements from many designers, without a definite final form in mind ("Samuel Butler's 'The Book'" 369).

machines. Butler argues that “Man’s very soul is due to the machines; it is a machine-made thing: he thinks as he thinks, and feels as he feels, through the work that machines have wrought upon him, and their existence is quite as much a sine qua non for his, as his for theirs”(207). Butler calculated that without the technology represented by knives, clothing and agricultural machinery: “we should become extinct in six weeks” (207) and that without steam power it would be “as though our population were suddenly doubled with no additional means of feeding the increased number” (220). This statement suggests both Malthusian fears over growing populations and disquiet over the ways in which life was being transformed by the arrival of steam power, which by the 1840s had “supplanted the power of water wheels, of animals, and of human muscles” (Sussman 3). Butler’s awareness of the dependencies between machinery and standard of living is not surprising given that, as James Smithies describes, he witnessed the rapid expansion of technology and engineering works in New Zealand in the 1860s (212).

All the same, Butler could also argue for the positive influence of machines. In the final chapter of “The Book of the Machines” he introduced a second writer who maintained that machines were merely external limbs which could be used for a variety of purposes. For example, the spade is just an extension to the hand, and the umbrella an external organ to protect oneself from the rain. Sussman points to the increased use of prostheses due to industrial accidents as the root cause of the Victorian interest in the combination of human body and machine (50). For Butler, the nexus between organic body and machine was less important than the potential for machines to help humans take control of their own evolutionary process. “In fact, machines are to be regarded as the mode of development by which human organism is now especially advancing, every past invention being an addition to the resources of the human body” (*Erewhon* 223-4). But Butler did have reservations about access to mechanical assistance, believing it might short-circuit competition and lead to “inferior physiques” being transmitted to future generations, causing “a degeneracy of the human race” (224).[28] Butler also feared that the outcome of evolution might lead to “man himself being nothing but soul and mechanism, an intelligent but

[28] This was a common fear amongst eugenicists who objected to any form of assistance that might help the weak to survive and pass on their inferiority to future generations.

passionless principle of mechanical action" (224). This idea echoes Bulwer-Lytton's concept of the emotionless automaton-like Vril-Ya,[29]

Butler further emphasised the connection between evolution and machinery by playing with its inverse – the idea that humans were responsible for helping machines to evolve. No designer would deny that technology keeps on improving; however, by applying "the struggle for existence" to machines Butler added a sense of sinister intentionality to the process: "The machines being of themselves unable to struggle, have got man to do their struggling for them" (207). Butler saw it as a short step from man as involuntary agent in the development of machine life, to man as slave to the machine:

> Is it not plain that the machines are gaining ground upon us when we reflect on the increasing number of those who are bound down to them as slaves, and those who devote their whole souls to the advancement of the mechanical kingdom? (208)

Butler was tapping into growing fears about mechanisation, and the changes this was bringing to working life. The machine as malevolent entity was to become a dystopic theme of subsequent fiction, with H. G. Wells depicting the murderous idolisation of a power station engine in the short story "Lord of the Dynamos" (1894) and E. M. Forster's describing a machine-controlled dystopia in "The Machine Stops" (1909). But Butler's anti-machine rhetoric was nuanced by its satirical context, and a scientific and historical approach, which showed an awareness of the laws of thermodynamics, and a grasp of the significance of the change from technology running on human or horse power to one which requires its own fuel, some of the consequences of which are still being seen in the modern world in our reliance on oil.

Butler's analogy concludes with the idea that the development of machines is occurring at a far faster rate than evolution by natural selection: "[man] spends an incalculable amount of labour and time and thought in making machines breed always better and better; ... and there seems no limits to the results of accumulated improvements if they are allowed to descend with modification from generation to generation" (212). The selective breeding of

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[29] Sussman discusses how the rise of the self-regulating machine began to erode the concept of the soul being responsible for animating human action (49-50). Butler, on the contrary, imbues all forms of life with some element of soul, arguing in *Luck, or Cunning*? that "we must hold that all body with which we can be conceivably concerned is more or less ensouled, and all soul, in like manner, more or less embodied" (77).

animals was Darwin's main analogy for natural selection, and Butler harks back to this with his concept of humans breeding machines. Darwin saw human efforts as a poor shadow of nature, partly because humans are not as amoral as Nature: "He [man] does not allow the most vigorous males to struggle for the females. He does not rigidly destroy all inferior animals but protects during each varying season, as far as lies in his power, all his productions" (*Origin* 70), but also because humans select for short term gains, and cannot work over long eras of evolutionary time. Darwin therefore saw the works of nature as being far superior to those of humans, a conclusion which he expressed in terms that come close to reinstating Nature as the designer or artificer of natural theology: "Can we wonder, then, that Nature's productions should be far 'truer' in character than man's productions; that they should be infinitely better adapted to the most complex conditions of life, and should plainly bear the stamp of far higher workmanship?" (70). Butler, on the other hand, doubted the superior efficacy of nature. "It must always be remembered that man's body is what it is through having been moulded into its present shape by the chances and changes of many millions of years but that his organisation never advanced with anything like the rapidity with which that of the machines is advancing" (212-3). Butler shows that machine evolution has the potential to benefit from a ruthlessness that humans would not countenance, for example, the destruction of whole races in order to provide for a better design (207). However there remains something endearing about Butler's master race of robots. They do not take to destroying each other or mistreating their human slaves. They are instead products of the Victorian love affair with machinery, children of the steam age that is once more exerting its fascination in the form of the steampunk and neo-Victorianism. For Butler, the ever improving races of machine life which he envisaged represent the potential for an enhanced and directed evolution to bring about a new kind of consciousness.

Butler initially denied that "The Book of the Machines" was a satire on Darwin's *Origin of Species*, as critics assumed. He wrote to Darwin in May 1872 assuring him that the ideas were developed "for mere fun", and were introduced into *Erewhon* to show "what absurd propositions can be defended by a little ingenuity and distortion and departure from strictly scientific methods" (qtd. in

Jones 156).[30] Butler claimed instead that "The Book of The Machines" was a satire on Bishop Joseph Butler's *The Analogy of Religion, Natural and Revealed, to the Constitution and Course of Nature* (1736), a work of natural theology that both Butler and Darwin would have studied at school.[31] In *Analogy* (1736) Butler used examples from nature to persuade his readers of the probability of various religious doctrines being true, and to argue that the difficulties arising from Christian doctrine were no more extensive than those surrounding our understanding of nature. Bishop Butler's style of argument, built up from possibilities and inexact analogies, is certainly detectable in "The Book of the Machines", as is Paley's argument from design based on the analogy of the watchmaker. However, there is also a strong element of satire at Darwin's expense. For example the following passage is clearly a pastiche of Darwin's methodology and writing style:

> The writer attempted to support his theory by pointing out the similarities existing between many machines of a widely different character, which served to show descent from a common ancestor. He divided machines into their genera, sub-genera, species, varieties, subvarieties, and so forth. He proved the existence of connecting links between machines that seemed to have very little in common, and showed that many such links had existed, but had now perished (214).[32]

Butler may not have been consciously trying to satirise Darwin, but the instinct to do so shows that he was beginning to move beyond his initial respect for Darwin's work. "The Book of the Machines" is partly about the influence that one book can have on history. The fact that the book in question was so clearly based on the style and methods of *The Origin of Species,* suggests that by the 1870s Butler was already feeling uneasy about the position of unchallenged orthodoxy that Darwin's theory had attained.[33]

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[30] Butler also disclaims any intention of attempting to "reduce Mr Darwin's theory to an absurdity" in the Preface to the second edition of *Erewhon* in June 1872 ("Preface" 29).
[31] Charles Darwin and Samuel Butler both attended Shrewsbury school, Darwin from 1818 when Samuel Butler's grandfather Dr. Samuel Butler was headmaster, and Butler from 1847 onward. Peter Raby in his biography of Samuel Butler comments that "The system that Dr Butler installed was predominantly the curriculum and routine that his grandson Samuel was later to experience" (9).
[32] For further examples of Butler use of examples and phraseology from Darwin's *Origin* for his satire on analogical reasoning, see Gillott (49).
[33] See also Breuer "Samuel Butler's 'The Book of the Machines' and the Argument from Design".

"The Book of the Machines" turns a patently absurd and exaggerated argument for the destruction of machines into a highly speculative exploration of the evolutionary future of humans and machines. Sue Zemka argues that "Butler's playful inquiry into the evolutionary future of the machine-species expresses the loss of certainty that attends an expanding category of humanness" (463) in that Butler reduces all human cultural activity to a mechanistic enactment of survival of the fittest. Murray Code, on the other hand, sees in Butler's imaginative extension of evolution beyond nature as opposing "the despiritualizing metaphysics of materialism" (107). Such diametrically opposed views are typical of criticism on Butler, due to what Gillott describes as "Butler's wider project to show that all categories include elements of their opposite" (51). However, as well as exploring the boundaries between humans and machines, Butler is also trying to build an argument to demonstrate the flaws in Darwin's theory of natural selection, and the importance of human will and conscious selection in evolutionary progress.[34] Butler hints at humans' ability to control their own evolution through strategic use of tools. Although he warns against over-dependence on machines, he sees limitations to natural selection as a mechanism for human progress. He is struck by the analogy of machines being improved through the continual agency of human beings, and begins to envisage a form of evolution involving a more Lamarckian sense of purposeful design and teleology than provided by natural selection. This is a strand of thought that Butler would pursue in more detail within the satirical utopia *Erewhon* itself.

2.3 The Erewhonian Standard

Even though "The Book of the Machines" is the section of *Erewhon* most obviously marked by Butler's response to Darwin, the novel as a whole shows the strength of the link between evolutionary ideas and utopian fiction in the late nineteenth century. The setting within an imaginary world allows Butler to introduce a series of absurd ideas which permit him to explore some of the consequences of his own changing convictions about science and religion. In

[34] Anna Neill argues that Butler's work is compatible with present enquiries into non-genetic elements of evolution which in the case of humans includes the role of culture in evolutionary processes.

Butler's invented world, ill health is a crime, the Musical Banks deal in a currency that no-one uses, children pester their parents to be born and the Colleges of Unreason teach Inconsistency and Evasion. Although *Erewhon* is written as satire on Victorian life, Butler also makes use of satire to discover his own position.[35] In so doing, he becomes quite serious about some ideas, which despite their apparent absurdity, signal a move away from his fascination with natural selection as presented by Darwin towards seeing good health, physical beauty, and luck as key to the progress of humanity. By concentrating on these elements, Butler proposes an alternative version of evolution which has distinctly eugenic overtones in its emphasis on perfect bodies and good breeding.

Good health is at the centre of one of the major satirical reversals of the book. In Erewhon, ill health is a crime punishable by prison or even death, while a good physique is equated with good character. The association between ill health and crime is strikingly represented in the description of the trial of a man for the crime of pulmonary consumption. This scene, which, as Henry Festing Jones, Butler's friend and biographer describes, was transcribed directly from court reports (168), can be read purely as a satire on the procedures of the English legal system: "You were convicted of aggravated bronchitis last year: and I find that though you are now only twenty-three years old, you have been imprisoned on no less than fourteen occasions for illnesses of a more or less hateful character..." (115). However, it is clear that the link between ill-health and criminality was of more than satirical interest to Butler. Breuer has identified George Drysdale's *The Elements of Social Science; or Physical, Sexual and Natural Religion* (1855) as one of the sources of Butler's ideas on disease as crime ("Source" 317). Drysdale was a Malthusian and campaigner for contraception, and his book went through numerous editions, partly due to its reputation for sexual permissiveness. Drysdale's argument was that Christianity's prioritisation of the spiritual life over the physical had led to the neglect of bodily health and physical strength. Drysdale maintained that physical virtue was as important as morality in the "physical religion" he was promoting. He argued that "To break a physical law is just as culpable as to

[35] U.C. Knoepflmacher contrasts Butler's satirical procedure with that of Swift, arguing that while Swift mocks deviations from orthodox positions "Butler resorts to satire in order to grope for the norms necessary for such a position" (238).

break a moral one, and therefore all physical diseases must be regarded as a sign of sin, and as little in the one case as in the other can ignorance be received as an excuse. No man whose body is diseased whether hereditarily or individually can be called a virtuous being" (5).

The association between disease and crime contains a strong evolutionary message. In terms of species survival ill health is far more of a crime than theft or embezzlement, which in Erewhon are treated simply as lapses requiring the services of a "straightener". Butler's narrator Higgs argues in favour of the Erewhonian system, as "the only means of preventing weakness and sickliness from spreading" and thereby "lowering the Erewhonian standard" (119), that is the high level of health and good looks that the narrator comments on throughout the narrative. The judge also specifies that the unhealthy should be prevented from breeding, or as he puts it in Erewhonian terms, "[t]he unborn must not be allowed to come near you" (116).[36] A similar measure would be proposed by eugenicists, not as punishment, but to prevent the inheritance of range of supposedly heritable conditions. There are also hints of an earlier, more extreme eugenic practice in Erewhon of sacrificing the ugly and unhealthy "to propitiate the gods of deformity and disease" (96). Patrick Parrinder's analysis of the significance of these rituals, conducted in the terrifying ring of statues that guard the border of Erewhon, leads him to conclude that "the statues represent the origins of Erewhonian eugenics" ("Entering" 17). While Butler's satirical mode makes it hard to tell where he is endorsing and where he is mocking such ideas, there is no doubting that these issues represent a consistent thread within Butler's apparently nonsensical speculations.

Butler also placed a high value on beauty of form, which Drysdale describes as "that imperishable source of joy and stamp of nobility" (1). For Butler, his ultimate model was the gentleman or "swell", described in his note-books as one who "shows what may be done in the way of good breeding, health, looks, temper and fortune. He realizes men's dreams of themselves, at any rate vicariously. He preaches the gospel of grace" (*Note-Books* 36). The people of Erewhon have similar characteristics. The narrator praises them

[36] In Erewhon, the Unborn are incorporeal spirits waiting to be born, as will be discussed later in this chapter.

variously as “the very best-bred people that I ever fell in with” (78), unequalled “in respect of physique” “as good natured as they were robust” (98) and “more like the best class of Englishmen than any whom I have seen in other countries” (158). Ross Stuart associates Butler’s figure of the swell with the idea of evolutionary superiority: “the superman, fittest to survive and most graceful owing to the absence of conscience” (153). The idea of physical perfection creating its own morality is reinforced in Butler’s notebooks, where he writes: “The question whether such and such a course of conduct does or does not do physical harm is the safest test by which to try the question whether it is moral or no” (*Note-Books* 29). Unsurprisingly, Erewhonians prefer to be remembered for their beauty than their morality. Their epitaphs are scrupulously honest about moral attributes like jealously and ill temper, but they always claim great beauty, and have statues made of themselves, which are either idealised or modelled for them by a more attractive friend (127-8).

Butler later described beauty as “knowledge perfected and incarnate” (*Life* 38), reflecting a concept of aesthetic excellence as a sign of evolutionary advancement. Galton similarly assumed that beauty signalled good breeding, suggesting that the custom of the social elite in many countries of “purchasing the handsomest girls they could find for their wives ... has laid the foundation of a higher type of features among the ruling classes” (“Hereditary Talent” 165). Galton’s concept of beauty also shows a distinct racial bias. Cultural critic Anne Maxwell deduces from Galton’s infamous beauty map of the UK that he had a preference for a Nordic type of beauty, as well as a belief that “the highest forms of beauty were to be found in classical paintings and sculpture” (“Eugenics” 88). Butler too shows the Erewhonians as being biased in their notions of beauty, with the narrator’s fair hair being “greatly admired and envied” by the Erewhonians, due to its rarity, while the dark-skinned aboriginal tribes were considered “too ugly to be allowed to go at large” (96). Grant Allen in *Physiological Aesthetics* (1877) was more willing to recognise the relativity of racial norms for beauty, but, like Butler, associated beauty with elements of health, such as “lustrous deep-black skin, brilliant white teeth, clear and intelligent eyes, smooth round and glossy cheeks ... general plumpness of body” (108). His argument was:

> [H]uman beauty is, in part at least, a combination of abstract pleasures in form and colour, with a certain given, relatively-rigid, symmetrical,

> normal, healthy type. All very wide divergence from the type is shocking to us, and is usually connected with disease, imperfection or morbid function (108).

Butler's aesthetics show less awareness of the physiological relativity of his judgements, and a more unquestioning association between beauty and health, as well as a conviction of beauty being a good indicator of heredity. Darwin, on the other hand, was less certain about the mechanisms for selecting for beauty. After looking at the role which ornament and colour played in sexual selection, Darwin stated:

> It is certainly not true that there is in the mind of man any universal standard of beauty with respect to the human body. It is, however, possible that certain tastes may in the course of time become inherited, though there is no evidence in favour of this belief; and if so, each race would possess its own innate ideal standard of beauty. (*Descent* 651)

The final element in the materialist religion of *Erewhon* is luck. The judge concludes his address to the consumptive prisoner with the statement: "You may say that it is your misfortune to be criminal; I answer that it is your crime to be unfortunate" (117). The luck argument partly alludes to the element of chance within Darwin's theory of evolution by natural selection, which operates through the apparently random way in which new characteristics may arise, and through the chance conditions which allow these variations to establish themselves within a population. Butler also had a strong awareness of the arbitrary nature of even fundamental conditions of our life: "The Erewhonians say it was chance only that the earth and stars and all the heavenly world began to roll from east to west and not from west to east, and in like manner they say it is by chance that man is drawn through life with his face to the past instead of the future" (168).[37] Butler set out his views on this subject of luck in a letter to the editor of the *Pall Mall Gazette*, containing extra examples which he added to the text of *Erewhon* for the second edition in 1872.[38] He argued that the laws of society are based on respect for luck. We kill a lamb because "[i]ts

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[37] Though Butler does allow natural selection a role in destroying a race of men who could see into the future, maintaining that "if any were to be born too prescient now, he would be culled out by natural selection, before he had time to transmit so peace-destroying a faculty to his descendants" (168).

[38] See "The Ethics of 'Erewhon'" (1872). In this letter Butler argues in typical contradictory style that even though we have little choice in our actions we still must take responsibility for them.

offence is the misfortune of being something which society wants to eat, and which cannot defend itself" (120). We tolerate the luck of hereditary wealth because "we cannot seriously detract from a man's merit in having been the son of a rich father without imperilling our own tenure of things which we do not wish to jeopardise" (120). These examples were all annotated by Butler as being "meant seriously" in his own copy of *Erewhon* (Breuer, "Source" 321). This was because Butler also saw ideas of luck or good fortune as being important for ensuring advantageous evolutionary development:

> No-one with any sense of self-respect will place himself on an equality in the matter of affection with those who are less lucky then himself in birth, health, money, good looks, capacity, or anything else. Indeed, that dislike and even disgust should be felt by the fortunate for the unfortunate ... is not only natural, but desirable for any society, whether man or brute. (*Erewhon* 104)

While the first sentence could be read as mere snobbishness on Butler's part, taken in conjunction with the second it is clear that he is talking about the evolutionary advantage of associating with the fortunate, particularly when it comes to selection of a sexual partner; also that luck and fortunate variations have to be maintained through the will or cunning of those making the selection and promoted for the good of society. Butler added a final clause to this argument in the second edition (1872), concluding "what progress either of body or soul had been otherwise possible?"[39] This sentence was underlined in Butler's own copy with the note in the margin: "meant quite seriously" (Breuer "Source" 320). This addition suggests that Butler saw human progress as being linked to prudent sexual selection, based on health, good looks, monetary success or other indicators of evolutionary fitness to survive. Also by placing an emphasis on physical strength, beauty and good luck, as the basis for the social values and judicial system of Erewhon, Butler is turning away from a morality based on Christian ethics, to one based on "survival of the fittest". Butler also argued in the 1901 revision of *Erewhon* that elements of this natural law which associated health with morality have always been in operation, leaving traces

[39] Later removed in the 1901 revised edition

within our language, such as calling an injured arm a “bad” arm or using the word “peccant” for diseased matter within an abcess (103).[40]

Another telling inversion within *Erewhon* is the World of the Unborn, in which the afterlife of heaven or hell is replaced by a pre-natal existence of incorporeal spirits striving to be born. The memory and identity of these spirits is destroyed at birth, but there remains “a bare vital principal, not to be perceived by human senses” (173). This idea foreshadows Butler’s theory of the persistence of personality through unconscious memory that he was to develop in *Life and Habit* (1877) and also emphasises the importance of heredity, the world before birth, and the sense of evolutionary chance:

> [T]hey [the Unborn] must draw lots for their dispositions before they go, and take them such as they are, for better or worse – neither are they to be allowed any choice in the matter of the body which they so much desire; they are simply allotted by chance, and without appeal to two people whom it is their business to find and pester until they adopt them (*Erewhon* 169).

Butler uses the chapter on the Unborn to satirise the doctrine of original sin and baptism, again associating morality with the physical rather than the spiritual. The newborn child is the subject of a birth formula which releases the family from responsibility for its well-being, and the child is taken to task for being a drain on the resources of the family who “have perhaps already been injured by the unborn on some ten or twelve occasions” (164). Under this system, the struggle for survival is imported into the family. Sibling competes against sibling, and parents try to dominate and control children, as Butler was to demonstrate in his posthumous novel *The Way of All Flesh* (1903).

Butler’s attempts to remodel family bonds along evolutionary lines and sideline the personal aspects of relationships provide, as David Amigoni suggests, a “poetic expansion” on Darwin’s work on parental investment (“Charles” 83). Darwin saw parental care for children not as evidence of the ethical superiority of humans over animals, but as analogous to practices in other mammals. Butler’s account of family life in *Erewhon* also takes away the

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[40] Butler was later to take issue with the whole concept of luck within the Darwin’s theory, most notably in his 1887 book *Luck or Cunning as the main means of organic modification?*, but he could never totally deny its importance, and admitted in his Note-Books that nine-tenths of conscious cunning is bound to be luck (Breuer, “Source of Morality” 328).

ethical element by placing family relationships on a contractual basis, governed by a “birth formula” which regulates the relationships between family and child until the age of maturity. (*Erewhon* 162-166). In *The Way of All Flesh*, parental investment continues to be contractual, but with a stronger emphasis on the future of the family. In this way Alethea Pontifex invests in Ernest through her will, but withholds the money from him until his twenty-eighth year to allow him time to learn and develop. Ernest in turn sends his children away to a simpler but healthier environment, and provides for them through his choice of foster family, and money to promote their careers. The drive for both Alethea and Ernest is to act for the benefit of the children and to maximise their potential for transmitting the good qualities of the family’s inheritance, rather than subordinating their future to the needs of the parent.

The perversity of Erewhonian ideas gave Butler ample opportunity to explore the consequences of a world where nothing could be taken for granted any more. His own personal loss of faith and his reading of Darwin combined to make *Erewhon* into a work of utopian fiction where utopianism gradually takes on an absurdist bent, which undermines the cultural values usually associated with utopianism. Butler reversed the usual mode of utopian thinking by concentrating on the outcome, which is perfect healthy people, rather than the moral or social refinements which might lead to this result. In doing so he was taking more interest in the development of the human race as a species, than the individual morality of its members, or promoting any high spiritual ideal.

2.4 Butler versus Darwin

In *Life and Habit* (1877), the first of four books speculating on evolutionary science, Butler looked at how skills for complex actions like walking, writing, reading and playing the piano can become unconscious through continuous practice. He compared the exercise of these skills with physiological processes like breathing or digestion and concluded that these actions could only have become automatic through long practice in previous generations. In the absence of any viable theory of heredity, Butler was not alone in looking for some mechanism by which the embryo would know how to grow into a human being, and an explanation of how the instincts that most species are born with are passed on from generation to generation. Butler’s

solution was to argue that we and our ancestors must be one and the same person:

> [I]f a man of eighty may consider himself identical with the baby from whom he has developed ... then the baby may just as fairly claim identity with its father and mother. By parity of reasoning each living form now on earth must be able to claim identity with each generation of its ancestors up to the primordial cell inclusive. (17)

The significance of this idea was that evolutionary progress could be seen as accumulating through habit and instinct from one generation to the next, through what Knoepflmacher describes as an ongoing "Evolutionary Personality", which subordinated individual identity to a compound life force (251). A change in environment could introduce conscious modifications, which would gradually be turned through habit into unconscious instinct. Hence Butler valued common sense and instinctive behaviour over reason and logic, and regarded all forms of orthodoxy and authority as dangerous, and liable to obscure the inner voice of common sense.[41]

However, having written most of *Life and Habit*, Butler was shocked to find on re-reading *The Origin of Species* that Darwin did not necessarily see instinct as being formed by habit inherited from one generation to the next, thus undermining Butler's main argument (*Unconscious* 23). Butler was influenced by St. George Mivart's *Genesis of the Species* (1871), which pointed out some of the problems with Darwin's theory of natural selection. Mivart argued that natural selection was unlikely to move distinctively or fast enough to account for evolution as variations occurring at random would cancel each other out and be unlikely to spread through a population. Also the rate of change achieved by this method would, in Mivart's view, be too slow to fit with the fossil record and contemporary estimates of the length of time life had existed on earth.[42] Rereading *The Origin* in the light of Mivart's criticisms Butler became more

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[41] See Breuer "Samuel Butler's Notebooks: The Outlook of a Victorian Black Sheep" (1979) for the argument that Butler valued common sense above reason: "For Butler the answer was common sense, a faculty which in the best and nicest people was above reason but growing, so to speak, out of one's unconscious memory which judges matters on a balance of pragmatic considerations, not reason and logic alone" (32).

[42] Morton notes that Mivart's arguments were strengthened by incorrect calculations by such figures as the mathematician Fleeming Jenkins whose lack of understanding of the process of inheritance affected his calculations on the likelihood of a favourable variation spreading through a population, while the physicist William Thomson, later Lord Kelvin, placed a cap on the time available for evolution by incorrectly calculating the age of the sun (25-7).

critical of Darwin's work, and felt that, despite the detailed accounts of the accumulation of modifications, there was no explanation of how variations came about, and that Darwin's attempt to explain the main cause of variation "resolves itself into a confession of ignorance" (*Life* 275). This experience led to Butler hastily adding five extra chapters to *Life and Habit*, very different in tone to the earlier chapters, designed to show up the flaws in Darwin's theory of evolution by natural selection.

After publishing *Life and Habit*, Butler began to study the works of Darwin's predecessors, Buffon, Dr Erasmus Darwin (Charles Darwin's grandfather) and, most importantly, Lamarck. Butler was attracted to Lamarck's theory of the inheritance of acquired characteristics as it gave a strong sense of intent and purpose to evolution, along with potential for rapid development of the species. Butler saw Lamarck as supporting his own ideas about the role of intentionality in evolution: "To me it seems that the 'Origin of Variation', whatever it is, is the only true 'Origin of Species', and that this must, as Lamarck insisted, be looked for in the needs and experiences of the creatures varying" (*Life* 263). Butler backs up his argument for evolution through conscious will by returning to his image of the symbiosis of human and machine, pointing out that in developing machine technology "We have man, the very animal which we can best understand, caught in the very act of variation, through his own needs, and not through the needs of others" (*Life* 255).

Butler's reading of the older scientific literature resulted in him writing a second book on evolution *Evolution, Old and New* (1879). It also led him into a dispute with Darwin over his failure to acknowledge the previous generation of evolutionary scientists or the older form of Darwinism developed by Erasmus Darwin in his encyclopaedic text *Zoonomia* (1794). Butler saw Erasmus Darwin as being far more ready to accept design and purpose into evolution than his grandson: "According to the older Darwinism the lungs are just as purposive as the corkscrew. They, no less than the corkscrew, are a piece of mechanism designed and gradually improved upon and perfected by an intelligent creature for the gratification of its own needs". On the other hand, Butler argued, the newer Darwinism "sees nothing in the world of nature but a chapter of accidents and of forces interacting blindly" (*Evolution* 58-59). Butler had invested some effort in showing the potential support offered by Erasmus Darwin for his own theories on "the oneness of personality between parents and offspring" (198),

and was consequently much put out by several paragraphs appearing in a translation arranged by Charles Darwin of Ernst Krause's *Life of Erasmus Darwin* which suggested that any attempt to revive the ideas of Erasmus Darwin showed "a weakness of thought and a mental anachronism that no one can envy" (qtd. in *Unconscious Memory* 39). This insult was made worse for Butler by the text being supposedly a faithful translation of a work written before *Evolution Old and New* was published, making it seem like Butler's opinions were so ridiculous that they "were refuted in advance by one who could have no bias in regard to them" (40).

Charles Darwin was actually far more accepting of Lamarckian ideas than this dispute suggests. Adrian Desmond's historical account of early nineteenth-century evolutionary ideas, *The Politics of Evolution* (1992), throws some light on Darwin's ambivalence towards his predecessors. Lamarck's theories were taken up by political radicals, and even Erasmus Darwin's work was popular with radical scientists like Robert Grant, whereas Charles Darwin wanted to distance his evolutionary views from these associations: "He [Darwin] seems to have taken the move from Edinburgh, where his grandfather's *Zoonomia* was praised by Grant, to Cambridge, where Paley's *Natural Theology* treated it as a principal target in his stride, which surely says something about his growing social 'ambivalence'" (Desmond 403). This ambivalence may also have caused Darwin to emphasise the spontaneous and accidental over design and need in his theory, to distinguish it from the less socially acceptable earlier version. However, Butler also overstates the anti-Lamarckism of Darwin's work, and its lack of teleology. The concluding paragraphs of *The Origin* talk of "Variability ... from use and disuse" and the power of natural selection to ensure that "all corporeal and mental endowments will tend to progress towards perfection" (395). Desmond sees Darwin as "recasting nature as a self-improving workshop" (405-6), and Darwin himself included a chapter on inheritance through use and disuse in *Variation of Plants and Animals under Domestication* (1868).

The essential difference between Darwin and Butler, I would argue, lies more in temperament than actual ideas. P.N. Furbank contrasts Butler's evident enjoyment of the idea of "a toy-mouse in the shape of a man" to Darwin's shock at discovering insects that imitated flowers (62). Darwin preferred to ground his theory in the careful accumulation of detail, and hedge it round with caveats,

while Butler tried to make the evidence fit his ideas. The obsessive nature of Butler's procedure can be seen by his emotional reaction to opinions that contradicted his ideas, within the work of Darwin and other writers. Butler, after all, even taught himself German just to prove that Krause translated sentence did not appear in the original.

Nonetheless, Butler's obsessive criticism of *The Origin* did highlight the ambiguities and logical flaws in Darwin's argument. Furbank sees the value of Butler's evolutionary writing in his focus on language: "Butler displays how the tone of a defensive paragraph or over-qualified sentence may be made to reveal a dishonest intention in an argument" (73), while Amigoni points out that "Butler's early critique was distinctive because of the way in which he drew attention to Darwin's language, and to its ambiguity" ("Charles" 78). Butler's argument with Darwin showed the importance of interpretation, and was an early indication of how hospitable Darwin's work would be to different political views. The response to Butler's intervention also showed how much evolution had become a new form of orthodoxy. Butler certainly saw it this way: "I might attack Christianity as much as I chose and nobody cared one straw; but when I attacked Darwin it was a different matter" (*Letters* 40). In the end, Butler found that the religion of science was as unsatisfactory as the Christianity that he first rebelled against, leading him to conclude that "[t]he spirit behind the High Priests of Science is as lying as its letter" (*Way* 350)

Butler made a second foray into utopianism towards the end of his life in *Erewhon Revisited* (1901), but the Erewhon which Higgs, the narrator of the previous books, returns to is one that has done away with Straighteners, allows machines and has a new religion, Sunchildism, arising out of Higgs's seemingly miraculous escape at the end of *Erewhon.* By this stage in his life, Butler seems to have come to terms with the message of evolution, and, with Darwin long dead, no longer felt the need to prove his own case.

However, the pessimism which Darwin's work injected into utopian fiction persisted well into the 1880s. W.H. Hudson's *A Crystal Age*, published in 1887, featured another race of superior beings who had evolved so far that sexuality was virtually unknown, all trace of human culture had been forgotten and old-style humans were extinct. Similarly, in *After London*, published in 1885, Richard Jefferies portrayed an England which had reverted to feudalism, and human nature had deteriorated into an individualism where the rich enslave the

poor and fight pointless wars with their neighbours. The element of Darwin's work most in evidence in both is the struggles between tribes and the rapid decline and extinction of whole races. In representing the decline of civilisation into savagery or dwindling out of existence, these works also show signs of the generalised late-nineteenth-century anxiety over degeneration expressed in Ray Lankester's *Degeneration: A Chapter in Darwinism* (1880) as "we are subject to the general laws of evolution, and are as likely to degenerate as to progress" (60).

Evolutionary utopianism in late 1880s Victorian Britain appeared to be at an impasse, manifesting an uneasiness which paralleled the debates around the implication of Darwin's theory and its application to human society. Yet, in 1888, in an America undergoing its own crisis of high unemployment and industrial disputes, Edward Bellamy published a best-selling utopian novel based on a completely different interpretation of Darwinism. *Looking Backward* tells the story of a man who wakes up from the competitive exploitative world of the 1880s to a utopian future where society has been reorganised along co-operative lines which allow employment, education and wealth for all.

2.5 Bellamy and Positive Evolution

In diagnosing the ills of the late nineteenth century in *Looking Backward 2000-1887*, Bellamy uses the first-person narrative of his hero Julian West to describe late-nineteenth-century America as a society ruled by the struggle for existence in an environment of scarce resources. The device of placing his utopia just over a hundred years in the future gave Bellamy the chance to adopt a historical perspective on his own time, and observe it from the outside just as Darwin had observed the natural world. It also allowed him to think about evolution and how it might support improvements to society. Bellamy argued that the laws of natural selection were being distorted by human-made rules, which allowed the rich to pass on wealth and position to their descendants. In *Looking Backward* he criticised the rich for believing themselves to be "of finer clay, and in some way belonging to a higher order of beings" (8), a delusion which reinforced the social divisions between rich and poor. Bellamy, like Butler, saw the differences between social classes as being like those between races. Where Butler had observed that wealth allowed the rich to tack a ferry or railway

carriage onto their identity, Bellamy used the less modern metaphor of a coach, pulled by the masses of humanity, with the rich sitting idle on the top.[43] In fact, for Bellamy, industrialisation was another threat to the future, where corporate greed was preparing "the yoke of a baser servitude than had ever been imposed on the race, servitude not to men but soulless machines incapable of any motive but insatiable greed" (31). Bellamy's attitude to mechanisation is more clear-cut than Butler's, seeing it not so much as a threat to humanity's dominance but as a means of dehumanising the working class and increasing the gap between rich and poor.

These negative images of Bellamy's own time are counterbalanced by the optimism of the utopian future where the process of "industrial evolution" has led to social harmony and plenty under a nationalised industry. Bellamy's version of evolution is still based on "survival of the fittest", but his definition of fitness involved not competition but co-operation. So the larger corporations eliminated the smaller until "evolution was completed by the final consolidation of the entire capital of the nation" (32-3). Bellamy saw natural selection as working at the level of the group, and reasoned that a co-operative state where everyone worked for the common good was more efficient than "irresponsible corporations" and "syndicates of private persons" operating on the basis of "caprice" and individual profit (33). He fundamentally disagreed with the prevalent interpretation of human nature as competitive and self-serving:

> It was the sincere belief of even the best of men at that epoch that the only stable elements in human nature, on which a social system could be safely founded, were its worst propensities.... In a word, they believed ... that the anti-social qualities of men, and not their social qualities, were what furnished the cohesive force of society. (165)

The qualities of human nature which Bellamy emphasised were courage and patriotism. His use of the term "industrial army" for the workforce was deliberate. He envisaged society being organised using the cohesion and discipline of an army, but more importantly with the ideals he associated with the military, of heroism, self-sacrifice and brotherhood.

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[43] See Beaumont for the argument that the "largely pre-industrial" image of the coach signifies that Bellamy's tendency to ignore the role of capitalism in technological advances to focus on the abuses of capitalist society (*Spectre* 35).

In this respect, Bellamy's utopian thinking shows a striking similarity to elements of Darwin's work. As historian Thomas Dixon argues in *The Invention of Altruism* (2008) in both the *Origin* and the *Descent* Darwin refers to natural selection in relation to social groupings such as family, swarm, community or tribe (146). In particular, Darwin saw that a tribe which possessed a "great number of courageous, sympathetic and faithful members" would tend to triumph over less co-operative tribes (*Descent* 155). In the *Descent*, Darwin sees what he calls the social instinct (love of praise and fear of blame) as being reinforced in humans by the power of reflection, so that it becomes as important as stronger instincts like self-preservation, hunger, lust and vengeance (135-7). Courage, in particular, is highly valued because of its importance in the tribal history of humanity. Darwin concludes that social instincts, combined with sympathy, provide the primary impulse towards morality, and he makes the same point as Bellamy about human nature when he writes: "Thus the reproach is removed of laying the foundation of the noblest part of our nature in the base principle of selfishness" (145).

Bellamy was at pains to show that his ideas did not presuppose a change in human nature, arguing that the abuses of power and self-interest of the nineteenth century disappeared in his utopian future because: "the conditions of human life have changed and with them the motives of human action" (36). Instead Bellamy saw humans as being perfectible, through education and changes in their social environment. The potential for people to be shaped or even programmed by their environment was demonstrated in Bellamy's short novel, *Dr. Heidenhoff's Process* (1880), where a fallen woman is saved from guilt by having the memories of her misdemeanours erased by electro-therapy. Dr. Heidenhoff theorises that there is no fixity to human personality. The person who commits a crime is therefore not the same as the person who is brought to justice over it, so if the memory of the act is erased then there would be no more point in punishing them than punishing an innocent man. In developing this idea, Bellamy was rejecting Christian ideas of guilt, and looking to medical means to eradicate crime. Like Butler, Bellamy saw criminal tendencies as not dissimilar to physical disorders, and wrote in one of his private notebooks:

> To have violent blood is a misfortune and after producing much unhappiness often leads to the gallows. To be humpbacked is a

> misfortune and after causing much unhappiness often leads to consumption and spinal disease. The one predisposition, like the other is to be regretted and so far as possible should be sought to be cured. (qtd. in Schiffman 197)

In *Looking Backward* crime is treated as atavism. Offenders are sent to hospital not prison, and their conditions treated as an illness:

> You used to call persons who stole, evidently without any rational motive, kleptomaniacs, and when the case was clear deemed it absurd to punish them as thieves. Your attitude toward the genuine kleptomaniac is precisely ours towards the victim of atavism, an attitude of compassion and firm but gentle restraint. (119)

For Bellamy, the atavistic traits from the pre-human past were a rarity to be cured by a rational society, rather than a threat of degeneration.

Education plays a key role in the future America of *Looking Backward* and universal education is seen as being beneficial to the whole of society. Bellamy's emphasis is on equality of opportunity, but there is little diversity in his education programme. Its function is to inculcate shared cultural values, ensuring that "all have some inkling of the humanities, some appreciation of the things of the mind, and an admiration for the still higher culture they have fallen short of" (130-1). Regardless of the specifics of his programme, Bellamy recognised the importance of equality in education: "[t]o educate some to the highest degree, and leave the mass wholly uncultivated, as you did, made the gap between them almost like the different natural species which have no means of communication" (130). Bellamy also emphasised the importance of physical education, which, alongside adequate nutrition and improved living conditions had brought about improvements in the physical health of the people of future Boston, convincing Julian West that "there must have been something like a general improvement in the physical standard of the race since my day" (131-2).

Bellamy was also influenced by theories on heredity and breeding. Eugenic thinking was beginning to make inroads into America in the late nineteenth century, through the influence of Galton, and agricultural breeders, while Richard Dugdale's 1877 study of seven generations of criminality in the Jukes family also set the tone for hereditarian interpretations of social problems (Kevles 71). The Oneida Community's experiment in "stirpiculture" which ran

from 1869 to 1879 was also underpinned by eugenic ideas. In his 1872 "Essay on Scientific Propagation", the community's founder, John Humphrey Noyes, acknowledged the influence of Plato, Darwin and, in particular, Galton on the experiment. However, the sexual radicalism of Noyes's programme was not appealing to the American public, and it had no imitators.[44] By the mid-1890s there were various campaigns for laws on marriage restriction and "asexualisation of the unfit", as well as campaigns to restrict immigration, but these two movements were completely separate, and the term eugenics was not widely in use (Haller 40). Formal scientific study of eugenics in the US did not get underway until 1904 when Charles Davenport secured funding from the Carnegie Institution of Washington to set up the Station for Experimental Evolution at Cold Spring Harbor.

Bellamy invokes a form of positive eugenics to account for the racial improvements described in *Looking Backward*, seeing it as working through the unhindered operation of sexual selection "with its tendency to preserve and transmit the better types of the race" (156-7). Bellamy theorised that without the biasing factor of wealth, selection could be made on the basis of "the gifts of person, mind, and disposition; beauty, wit, eloquence, kindness, generosity, geniality, courage" (157). Dr. Leete, Julian West's guide in the utopian future Boston shows little doubt about the heritability of these traits, claiming that "race purification" through untrammelled sexual selection has led to "not only a physical, but a mental and moral improvement" (157).

Although Darwin initially saw sexual selection as the "struggle between the males for the possession of the females" (Origin 73), in the *Descent* he began to look at choice exerted by the female, and accepted female sexual selection as a factor in evolution, at least where the female bird or animal had the mental capacity to choose (246). As Levine points out, this was a remarkably revolutionary stance to take given the cultural prejudices of Darwin's time which tended to see women as intellectually inferior to men **(***Darwin Loves* 177**)**. In *Looking Backward*, Bellamy is quite forthright about women being in control of sexual selection, and having the intellectual capacity to do so. They

[44] Richards argues that the conservatism of eugenicists and the reluctance of the Oneida descendants to talk about the experiment in stirpiculture led to the Oneida Community having little influence on the eugenics movement itself, although both Wells and Aldous Huxley visited Oneida, suggesting that the community held more appeal for those interested in utopian experiments (61-6).

are portrayed as operating a ruthless triage to find the best and most successful males for the sake of the next generation, and use peer pressure to prevent anyone taking pity on the unsuccessful:

> Celibates nowadays are almost invariably men who have failed to acquit themselves creditably in the work of life. The woman must be a courageous one, with a very evil sort of courage, too, whom pity for one of these unfortunates should lead to defy the opinion of her generation – for otherwise she is free – so far as to accept him for a husband. (157-8)

Bellamy describes women as "the wardens of the world to come, to whose keeping the keys of the future are confided" (158). Despite the importance of this role, Bellamy's portrayal of women in his future world is quite problematic for modern readers. Edith Leete, the daughter of West's host, is constantly referred to as an angel, her only skill seems to be shopping, and she is not technically competent enough to show West how to tune in his clock radio.[45] All Dr. Leete's descriptions of the vastly improved organisation of resources and working life refer exclusively to men, so it comes as a surprise to discover towards the end of the book that, contrary to appearances, women do work and even have their own separate industrial army. Bellamy's "equal but different" philosophy would sound better if there were fewer caveats, such as: "Under no circumstances is a woman permitted to follow any employment not perfectly adapted, both as to kind and degree of labor, to her sex."(151). Bellamy may have been attempting to counteract common arguments against allowing women to work by recommending that they have shorter working hours, frequent vacations and opportunities to rest; however, the suggestion that women should work because it is good for them comes across as condescending to the modern reader. Nevertheless, Bellamy was seriously committed to feminism, and in *Equality* (1897), the sequel to *Looking Backward*, he offers a fuller and more radical picture of female agency and employment.[46] However, for him, women's role of selecting the right husbands for the future of their race was even more important than their civic role in society.

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[45] See Lewes p. 35-6 for more problems with Bellamy's representation of women in *Looking Backward*.

[46] See Franklin Rosemont's "Bellamy's Radicalism Reclaimed" (173-177) for a good account of Bellamy's feminism; for a more critical view see Sylvia Strauss "Gender, Class, and Race in Utopia", both in Patai, Daphne, ed. *Looking Backward, 1988-1888: Essays on Edward Bellamy*.

It is clear that Bellamy's view of the biological nature of inequality is at the root of the many institutions and customs of his future world. He argued that everyone needed to be educated regardless of ability and earn the same wages whatever they achieved. This is why he recommended work opportunities for women and the disabled, and hospital treatment rather than punishment for criminals. As he saw it, "survival of the fittest" would be unlikely to deliver an equal society. Even though Bellamy put evolution at the heart of his concept of utopia, maintaining that *Looking Backward* was "intended in all seriousness as a forecast, in accordance with the principles of evolution**,** of the next stage in industrial and social development of humanity" ("Postscript"195), it was evolution based not on the competitiveness of natural selection, but on co-operation and sexual selection. Like Butler, Bellamy saw humans as directing their own evolution and developing as a result of the intellectual capital of their predecessors: "How happened it ... that your workers were able to produce more than so many savages would have done? Was it not wholly on account of the heritage of the past knowledge and achievements of the race, the machinery of society, thousands of years in contriving, found by you ready-made to your hand"(79)? Bellamy also equates evolution with rationality and social progress, describing the new system as "the logical outcome of the operation of human nature under rational conditions" (69). Ultimately, Bellamy's positive picture of human nature is essential to his conception of the alternative evolution behind his utopia: "If I were to give you, in one sentence, a key to what may seem the mysteries of our civilisation as compared with that of your age, I should say that it is the fact that the solidarity of the race and the brotherhood of man, which to you were but fine phrases, are, to our thinking and feeling, ties as real and as vital as physical fraternity"(78). Bellamy takes an inclusive view of the evolution of the human race, arguing that "our solution of the problem of human society would have been none at all had it left the lame, the sick, and the blind outside with the beasts, to fare as they might" (78-9). This view marks him out as very different from American eugenicists such as Charles Davenport who in his 1911 textbook *Heredity in Relation to Eugenics* wrote:

> It is a reproach to our intelligence that we as a people, proud in other respects of our control of nature, should have to support about half a

> million insane, feeble-minded, epileptic, blind and deaf, 80,000 prisoners and 100,000 paupers at a cost of over 100 million dollars per year. (4)

Bellamy is often described as a Christian Socialist. He could also be called a Christian Darwinist, for the Christian gospel of brotherly love certainly marked his ideas of evolution, and Biblical quotes are used frequently throughout *Looking Backward* to reinforce his points. Bellamy did not see any contradiction between evolution and Christianity. To him, evolution was all about completing God's plan, and in the final phrases of the radio-evangelist Mr Barton, Bellamy links evolution to humanity's future: "For twofold is the return of man to God 'who is our home', the return of the individual by way of death, and the return of the race by the fulfilment of the evolution, when the divine secret hidden in the germ shall be perfectly unfolded" (171).

Looking Backward was phenomenally popular, selling ten thousand copies in 1888, 200,000 in 1889, and a total of a million by the early 1890s (Madison 457) and was possibly the second highest-selling American novel of the nineteenth century after *Uncle Tom's Cabin* (1852) (Auerbach 42).[47] The book's influence went far beyond fiction into politics, with the formation of Nationalist clubs to promote Bellamy's ideas, and involvement in the 1892 Presidential campaign. The success of *Looking Backward* also re-energised the utopian genre in the UK. William Morris wrote *News from Nowhere* in 1890 as a riposte to what Morris described as the "very extreme of national centralisation" in Bellamy's utopia (356), and then Wells wrote *The Time Machine* (1895) and *A Modern Utopia* (1905) in response to *News from Nowhere*. *Looking Backward* also spawned numerous responses, imitators and sequels in the US and elsewhere.[48] The appeal of Bellamy's utopia has been attributed to a variety of causes, with, for example, Jonathan Auerbach citing "its urgent insistence on change" and promise of transformation and unity as key to its success, while Howard P. Segal concluded that it owed its popularity to Bellamy's "middle-of-the-road stance" on technology. However, it could also be argued that the book's optimism about human potential through evolution was a strong factor in

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[47] Sales in the UK were good too, or as Marshall described them "sensational", with over 40,000 copies sold in its first year of publication and 100,000 copies by 1890 (Marshall 88). The success of *Looking Backward* boosted the sales of other works of utopian fiction, causing William Morris's *News from Nowhere* to be more widely read in continental Europe than any of his other works (Marshall 93).

[48] See Matthew Beaumont's *The Spectre of Utopia* (27-31) for further information on the publication history and influence of *Looking Backward*.

its appeal. Bellamy came to such a positive outcome for his version of evolution by openly equating "survival of the fittest" with the dystopian past; his descriptions of the struggle, dirt and inequalities of nineteenth-century Boston are the most vivid part of the book, and make the case for social change all the stronger. He also focussed on the social advances of his utopia, and kept away from the more extreme biological implications of evolution. Bellamy was also of a younger generation than Bulwer-Lytton and Butler. He was only nine years old when the *Origin* was published and did not live through the dramatic impact that Darwin's theory had on Victorian society. Even Hudson, who was only nine years older than Bellamy, read the *Origin* not long after publication and went through a personal struggle to accept the truth of evolution (Morton 71-2). Bellamy's formative years were spent in a Baptist household in small town America, imbibing tales of heroism, and as a student in Germany where he encountered Marxism and also the shocking poverty of European cities (Beaumont "Introduction" xii). He was also influenced by the New England transcendentalism of Ralph Waldo Emerson, drawing on Emerson's concept of "the Over-Soul" in his early unpublished work "The Religion of Solidarity" (1874), to conceive a universalising spirit which subsumed the selfishness of individualism in the interests of the community.[49] For Bellamy, evolution and natural selection provided a mechanism for bringing about social improvements and offered scientific backing to the theory of socialism, which he was careful to rebrand as nationalism for the American market.

The popularity of *Looking Backward* also seems to have been due to Bellamy's ability to tap into contemporary concerns about "the labor question" while offering a pain-free solution which largely ignored the reality of working life. The utopian future Boston cheats in the same way as *Erewhon* does in portraying an educated, leisurely lifestyle similar to that of the middle class, while pretending it is no longer based on someone else's labour. Bellamy sees natural resources as infinite, so as long as everyone works hard, and labour is efficiently organised, he sees no barrier to prosperity for all. By removing "survival of the fittest" from the picture, Bellamy also removed one of the main checks on population growth, but there is no mention of this in twenty first

[49] Auerbach is critical of how Bellamy used Emerson's ideas, arguing that "Bellamy converts Emerson's self-evident, self-regulating laws into an equally self-correcting bureaucratic order" (38-9).

century Boston. In fact, the future world of *Looking Backward* is, as Auerbach points out, scarily empty, presenting just one family, and two service industry personnel (35). By contrast, the nineteenth century that West returns to in his nightmare is teeming with people, smells, noise and waste. This is the true exemplar of the Malthusian world which Bellamy and his contemporaries are trying to escape. Bellamy's message is that there can be hope in evolution, providing the reductionist pictures of human nature adopted by Social Darwinists is replaced by the model proposed by Darwin in *The Descent* of sympathy and cooperation.

Writers of utopian fiction in the 1870s and 1880s seem to have been both fascinated and repelled by Darwin's theory of evolution by natural selection. They did not always appreciate the full complexity of Darwin's argument, and there was a tendency to focus on a dominant reading centred on "survival of the fittest" and to extrapolate implications for the evolution of humanity which Darwin would never have supported. However, the response to Bellamy's work shows that although the way in which Darwin was read may have contributed to a crisis within concepts of utopia, his writing could also be used to support a more constructive version of human nature and inspired a new wave of utopian fiction based on the social bonds of sympathy and altruism.

2.6 Unnatural selection: Utopia and Eugenics

Natural selection had a number of drawbacks in relation to constructing utopian societies, the main one being that it was a slow and uncertain mechanism for achieving the kind of change which evolutionary theory promised. Therefore writers of utopian fiction tended to turn to human agency to improve on natural selection, whether through technology, memory, new habits or education. Also, it could be argued that, by using the analogy of agricultural breeding for nature's work in selecting species, Darwin opened the door to a more purposive version of natural selection, in the form of eugenics. Indeed, in *The Descent* Darwin does seem to endorse eugenics. In a passage about the danger of public health measures like vaccinations, he comments: "It is surprising how soon a want of care, or care wrongly directed, leads to the degeneration of a domestic race; but excepting in the case of man himself, hardly any one is so ignorant as to allow his worst animals to breed" (159).

However, as Levine points out, Darwin never did become a eugenicist because social instincts were more important to him than logic (*Darwin Loves* 63), as evidenced by his disclaimer against enforcing strict eugenic principles: “Nor could we check our sympathy, even at the urging of hard reason, without deterioration in the noblest part of our nature” (*Descent* 159). However, the connection between evolution, eugenics and utopia while not directly determined by Darwin was a strong one, arising from a wish to improve society through improving the health, intelligence and behaviour of those who lived in it, and a desire to avoid the consequences of unmediated natural selection.

Butler’s ideas are too diverse and inventive to be categorised as eugenics, even though some critics have done so, notably Parrinder who argues that *Erewhon* “is not the playful and ultimately pointless anomaly that so many of its critics have thought. It is a major work in the eugenic utopian tradition” (20). Knoepflmacher agrees that Butler’s reverence for physical grace and health could be describes as a “eugenic religion” (244), while Smithies sees Butler’s writings on machine evolution as prefiguring a fascination with eugenics in New Zealand in the 1920s (212). However, I would argue that even though Butler plays with eugenic elements in *Erewhon*, his satirical approach leaves it unclear to what extent he endorses them, and his concept of a single evolutionary personality places the responsibility for evolutionary progress on the self-improving individual not the state. Nonethless, Butler’s emphasis on health, beauty and luck make it clear that he is promoting a new morality based on species development. Butler saw good heredity as important to progress and success, though he was less interested in intelligence than Galton, since he saw unconscious memory, developed in iterative fashion through successive generations, as the means of achieving the instinctive grace that he admired. In the end, Butler’s version of self-directed evolution places humans in charge of their own fate, not through eugenic regulations, but through desire and cunning, the ability to seize advantage from the random chance of the universe.

Bellamy too recognised the importance of memory to evolutionary identity, but drew opposite conclusions to Butler. Instead of seeing an ongoing evolutionary person developing and progressing, Bellamy saw the individual’s memories subsumed into the greater whole, leading him to base evolution on communal solidarity rather than struggle and individual development. Bellamy does, nevertheless, endorse a society-wide form of eugenics in his altruistic

utopia, that of positive eugenics through female sexual selection. However, there is no suggestion of social engineering or negative eugenics, just a communal desire to improve and select for the positive qualities that Bellamy admired such as courage and love, and so restore direction and progress to the story of humanity. In developing Darwin's ideas on female sexual selection, and applying them unequivocally to humans, Bellamy was also sanctioning an unprecedented role for women in evolution and the future direction of the human race. Bellamy's vision of an improved humanity and society achieved through positive selection was one which would influence women writers of utopian fiction such as Charlotte Perkins Gilman, and set the tone for a new kind of collectivist evolutionism more hospitable to state-sponsored programmes such as eugenics, rather than trusting to an unmediated version of natural selection and "survival of the fittest".

3 Eugenics in Late-Nineteenth-Century Feminist Utopias

The last three decades of the nineteenth century saw the publication of an unprecedented number of works of utopian fiction or utopian speculation written by women. Darby Lewes lists at least sixty-five titles first published in Europe and America between 1870 and 1900, which is a large number for a genre where works by women were previously quite rare. Most of these works have been forgotten, or only rescued from oblivion by academics and specialist presses in recent decades. Written at a time of shifting gender relations, these lost utopias reflect the tensions and hopes in the lives of women as they struggled to reassess their role and identity in society. Some of them involve gender role reversals such as Annie Denton Cridge's *Man's Rights; or How Would You Like It?* (1870) or experimental communes where women and men work side by side to change gender roles as in Marie Howland's *Papa's Own Girl* (1874) or Jane Hume Clapperton's *Margaret Dunmore; or, A Socialist Home* (1888). These early feminist utopias also demonstrate growing concerns over issues of sexuality and reproduction. Carol Farley Kessler's examination of fifty nine pre-1970s US feminist utopias revealed that sixty four per cent saw marriage as a problem, compared to only twenty four per cent which "presented suffrage as part of a solution to women's place in society" (8). Inequality of power in marriage was often an issue, but so were women's responsibilities for choosing the right husband, regulating the size of their family and balancing the duties of motherhood with education and careers. This chapter looks at these issues from two perspectives important for eugenic feminism: women's responsibility for sexual selection and women's role in the future evolution of the human race towards a higher moral state.

The texts discussed in this chapter all illustrate some aspect of the interaction between evolutionary ideas of progress and women's arguments for being seen as equal or superior to men. They all recommend eugenic measures of some description, though without necessarily using the term eugenics, as eugenics was not a widely-established social movement at the point when these works were written. Instead they demonstrate the multiple sources of eugenic ideas extant in late-nineteenth-century society, borrowing from areas as diverse as Malthusianism, evolutionary science, Perfectionist spirituality and horticulture. The works of utopian fiction considered in this chapter also all

engage with scientific and biblical arguments over the nature of women, and see control over nature, both women's biological nature and natural forces in the external world as important to the progress of society. They indicate that late-nineteenth-century feminists were uneasy about the commonly-held association between women and nature, and looked to science to provide a means of controlling and transcending nature, particularly those aspects which related to sex and reproduction.

The first section of the chapter investigates Elizabeth Corbett's *New Amazonia: A Foretaste of the Future* (1889), a feminist utopia set in a future Ireland where the highest posts in society are reserved for a cadre of celibate women, and excessive reproduction is criminalised. Corbett's feminist arguments, provoked by double-standards over sexual behaviour, include eugenic regulation of marriage. I compare Corbett's approach to eugenics to that of fellow utopianist Jane Hume Clapperton, who recommends use of contraceptives to remove the link between sexual activity and pregnancy. In the next part of the chapter I turn to America utopianism and focus on Mary E. Bradley Lane's separatist feminist utopia *Mizora: A World of Women* (1889), originally serialised in a US newspaper in 1880-1. *Mizora* portrays a country where men no longer exist, reproduction occurs asexually, and the role of the mother is celebrated not penalised. In the final section of the chapter, the question of moral evolution is addressed in my examination of *Unveiling a Parallel* (1893), written by two women from Iowa, Alice Ilgenfritz Jones and Ella Merchant. *Unveiling a Parallel* presents two utopian societies, one a feminist satire on masculine values, and a second, more refined society whose citizens have consciously progressed beyond their appetite for greed and sex to form a more egalitarian, supportive society. I argue that all these texts display a strong belief in evolution as a means of refashioning human nature, and that their primary purpose was not simply establishing equality for women, but imagining a better world where values often associated with women, such as love, morality, chastity and spirituality could be achieved through evolutionary advances. However, in doing so, these writers often found themselves reinforcing traditional definitions of male and female social roles, or opting for a separatist approach based on role reversal or exclusion of men from these utopian societies.

3.1 Amazons, Science and Common Sense[50]

John Stuart Mill in *The Subjection of Women* (1869) remarks that the authority of men over women might be justified if it were found to be "the result of a conscientious comparison between different modes of constituting the government of society" such as "the government of women over men, equality between the two, and such mixed and divided modes of government as might be invented" (6). In *New Amazonia* Elizabeth Corbett, although not consciously referencing Mill, takes up the challenge of imagining the government of women over men, and attempts to prove that this truly was "the arrangement most conducive to the happiness and well-being of both" (Mill 6). However, in doing so, she reverses the inequalities experienced by the women of her day by barring men from all government posts in her imagined society, on the grounds of their supposedly inferior moral nature. In the two decades between the publication of *The Subjection of Women* and *New Amazonia*, Mill's logical and rational arguments for the lack of difference between the two sexes were being challenged by a new and apparently more scientific approach to the subject.[51] Mill argued that "What we now call the nature of woman is an eminently artificial thing" (Subjection 22), but many continued to argue that this nature was innate, circumscribed by physical laws. Anthropologists linked women and savages together as examples of a more primitive stage of evolution, while craniologists such as Paul Broca measured skulls and assumed a direct correlation between size and intelligence. Broca's conclusions that female brains were on average 10 percent smaller in volume than male brains were used in works such as George Romanes essay on "Mental Differences between Men and Women" (1887) to argue that women suffered under an intellectual disadvantage, particularly with respect to creativity and original thought, despite, in his view, equal access to the arts and science (384).

Even where inferiority was not taken for granted, the idea of differences between men and women was underpinned by a conviction that certain

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[50] Some of the material in this section was originally published by me in the following article: "Amazons, Science and Common Sense: The Rule of Women in Elizabeth Corbett's *New Amazonia*".

[51] Cynthia Russett's *Sexual Science: The Victorian Construction of Womanhood* demonstrates that by the late nineteenth century, Mill's views were disregarded because he was seen as unscientific (12-13).

characteristics were innate to women's nature and could not be changed. In *The Evolution of Sex*, published in 1889, the same year as *New Amazonia*, Patrick Geddes and J. Arthur Thomson argued that "man thinks more, woman feels more. He discovers more, but remembers less; she is more receptive, and less forgetful" (271). Geddes and Thomson attributed the differences between the two genders to cell biology, claiming that male cells were katabolic and dissipated energy, while female cells were anabolic and preserved energy. As a result, they saw different roles for men and women in evolution, with inherited characteristics being "perpetuated primarily by the female, while variations are introduced by the male" (270). This division also applied to temperament, with men being credited with more originality, and women with "greater stability and therefore more 'common sense'" (271)

Darwin is often seen as supporting this biologisation of the nature of women. In a much quoted section from *The Descent of Man* on the "Differences in Mental Powers of the Two Sexes" Darwin appears to suggest some strong innate differences between men and women: "The chief distinction in the intellectual powers of the two sexes is shown by man's attaining to a higher eminence, in whatever he takes up, than can woman—whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands" (629). By contrast, Darwin thought that women were more tender and less selfish than men and had higher powers of intuition and "rapid perception". Darwin's conclusions were based on observations of the distinctions between the male and female in many animals, which led him to attribute the difference in disposition of the two sexes in humans partly to the "maternal instinct" of women, and partly to sexual selection which, by requiring men to compete for women, had, over the course of generations, selected for "courage, perseverance and determined energy" in men. However, Darwin's argument is not based on an essentialist position of there being one fixed, unchangeable nature for women. As Richardson argues, the very concept of evolution with its fluid boundaries between species, origins and extinctions is in itself anti-essentialist ("Against" 25). Darwin's *Origin* undermined the whole idea of fixed species and ideal essences, so although he saw current differences between male and female as being a result of their evolutionary history, in particular sexual selection, he did not see these differences as fixed or unchangeable. In

a letter to Boston feminist Caroline Kennard, Darwin suggested that women might eventually recover their equality with men:

> I certainly think that women though generally superior to men to moral qualities are inferior intellectually; & there seems to me to be a great difficulty from the laws of inheritance, (*if I understand these laws rightly*) in their becoming the intellectual equals of man. On the other hand there is some reason to believe that aboriginally (& to the present day in the case of Savages) men & women were equal in this respect, & this w^{d}. greatly favour their recovering this equality. But to do this, as I believe, women must become as regular "bread-winners" as are men; & we may suspect that the early education of our children, not to mention the happiness of our homes, would in this case greatly suffer. (Darwin Correspondence Database, 13607)

In this letter, never meant for publication, Darwin is torn between seeing inheritance and social forces as the determining factor in the differences between men and women, and as such is a good example of the kind of arguments that were shaping the debate over women's potential to take an equal role in society.

It is against this backdrop of the debate over the biological, evolutionary and socially-determined elements of women's nature that I examine the significance of Corbett's all-female state of New Amazonia, based on a belief in the moral superiority of women, and the conviction that an all-female government will deliver better results than the existing government by men. Although Corbett uses science to underscore the progressive elements of her new society, she does not necessarily regard the difference between men and women's natures as being biologically determined. Her conviction of women's superior morality arises more from a sense of female solidarity emerging from the women's rights movement of the 1880s. In this section, I begin by exploring Elizabeth Corbett's position in an active sub-culture of women's rights campaigners, before examining the arguments for female superiority that she employs within *New Amazonia* and the position of eugenics in her vision for a society based on what she refers to as "science and common sense" (90).

One of the striking features of *New Amazonia* is that such a confident depiction of an all-women state was written by a prolific but relatively unknown, provincial "authoress". Elizabeth Burgoyne, who was born in Wigan in 1846 and

educated in Germany, began her career as a writer in Newcastle-Upon-Tyne in the early 1880s, where she contributed to the Newcastle Daily Chronicle (Suksang, *Overtaking* 76) and wrote a number of novels under her married name of Mrs George Corbett, not to universally good reviews. The reviewer in *Fun* magazine wrote unkindly of Corbett's 1895 detective novel: "*When the Sea Gives Up Its Dead* Mrs. George Corbett's book of that name will be appreciated – but not until then" (The Haughty-Culture-ist), while the review of *Deb O'Mally's* (1895) from the *Saturday Review* described Corbett's tale of a mill girl who marries a bigamist as "drearily, conscientiously bulky" (514). However, *Hearth and Home* in an 1893 article entitled "People, Places and Things" listed Mrs George Corbett alongside Dr. Conan Doyle as one of the masters of the art of the detective novel, and the *Women's Penny Paper* described the fantastical novel *Pharisees Unveiled*, as "clever and entertaining" ("Reviews"). Some criticism clearly shows the misogyny of the age. Corbett was accused of "feminine garrulity" for writing the three-volume novel *Cassandra* in 1884 (G. B. Smith 408), and when she embarked on a career as a dramatist in the West End in the 1890s, one reviewer sneered at the idea of a play being written in conjunction with "a lady" (Bill of the Play). However, Corbett was successful enough to get her plays staged, and to be commissioned to write over seventy serials (Blain, Clements, and Grundy 237), while fifteen of her novels are listed in the British Library catalogue, ranging in dates from 1881 to 1922.

Corbett's active career ensured that, unlike many women of her age, she had an independent existence outside of the domestic sphere, as well as being a wife and mother.[52] *New Amazonia* was not the only one of her novels to deal with the double standard of women's position in society. *Mrs Grundy's Victims* (1893) concerned two women victimised by gossip and middle-class hypocrisy, and *The Marriage Market* (1903) was "a first-person narration of a marriage 'broker' characterized as a trafficker in legal prostitution" (A. Rose 18). Corbett herself wrote in 1889 to the *Women's Penny Paper*: "I have seldom written anything in which I have not taken the opportunity of airing some of my views regarding the consequences meted out to erring women, in opposition to the popular treatment of equally or more guilty men". The *Women's Penny Paper*

[52] According to census records Mrs Corbett had at least four children. Three of them were living with her at the time of the 1901 census. Her husband is absent from both the 1881 and 1901 census, though Mrs Corbett is still listed as the wife of the Head of Family.

made a strong impact on Corbett, who wrote in the same letter: “A weekly perusal of the Women’s Penny Paper has shown me that others are brave enough to denounce existing evils, and has encouraged me in my determination to write unflinchingly, in at least one book, about many things that have often roused my indignation” (“Letters” 66).[53] The pages of the *Women’s Penny Paper* contained profiles of prominent women as well as a lively letter column with frequent letters from women writing under pseudonyms such as “Eloisa” and “Minerva”.[54] Corbett clearly felt at home in this subculture as she wrote another, more controversial letter criticising Queen Victoria for not recognising women in the New Year’s honours list, and a lively, chatty article on her experience of canvassing with the Newcastle Women’s Liberal Association in the 1890 local elections. Mrs Corbett’s letter concludes with the information that the unflinching book she had been encouraged to write by the *Women’s Penny Paper* was in fact *New Amazonia.* Within this context it is clear that the book can be read as a manifesto aimed at an existing audience rather than a wistful dream for the future. Beaumont is right to argue that “the real import of late-Victorian feminists’ utopian fiction lies less in its manifest content, its grand dreams of a future matriarchy or gynocracy, than its latent content, its frankly more modest fantasy of a like-minded community of women in the present” (*Utopia* 90-1), but in his focus on the “lonely individual consciousness of the woman writer” (90) he overlooks the fact that for Corbett at least the like-minded community of women already existed, and that in writing *New Amazonia* she was to a large extent writing for this far from fantastical community.[55]

The strength of this community of women was demonstrated by the protests that ensued when in June 1889 the *Nineteenth Century* published an anti-suffrage petition by novelist Mrs Humphrey Ward titled “An appeal against female suffrage”. The petition which claimed that “the emancipating process has now reached the limits fixed by the physical constitution of women” (782) was

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[53] The *Women’s Penny Paper,* whose strapline was “The only Paper Conducted, Written, and Published by Women” was founded in 1888 by Henrietta Muller, who edited it under the pseudonym of Helena B. Temple. Muller’s aim was to support the cause of suffrage by providing a newspaper for women which would give them an opportunity to voice their thoughts.

[54] Use of pseudonyms was common practice in the Victorian periodical press, see Van Remoortel (9). Also, Van Ardel in discussing contributors to *The Women’s Signal*, the successor publication to the *Women’s Penny Paper*, states that “Because they usually observed the Victorian imperative of anonymity it is hard to know just who they were” (93).

[55] Darby Lewes makes a similar point to Beaumont’s about the “isolation and vulnerability” of nineteenth-century middle-class women, and the “consolation of verbalizing their frustrations” in utopian writing (“Middle-class” 21).

signed by over a hundred women, many of them aristocrats or wives of prominent men. However, in response, over two thousand women signed a petition for the rival periodical the *Fortnightly Review*, protesting against the article; and even the *Nineteenth Century* was forced to print some examples of the contrary view in letters from Millicent Garrett Fawcett and Mrs Ashton Dilke.[56] The *Women's Penny Paper* also joined in the debate by pointing out the difference in social circumstances between the largely upper-class signatories of the appeal against suffrage and the middle class women who were fighting to get the vote.

> Those who stand on the middle rung of the social ladder [...] have a wider view and a more helpful experience; these see, in middle-class and artizan life, women taking their full share in the work of the world, they see them exact and scrupulous in money matters, careful managers of house and business and school, home-stayers while husbands are wasting their substance in riotous living, breadwinners for father-deserted children, for parents and brothers and sisters" ("Women's suffrage" 7).

Elizabeth Corbett openly aligned herself with the viewpoint of the *Women's Penny Paper*. In the prologue to *New Amazonia*, which is devoted to the subject of the *Nineteenth Century* article, she declared that she was one of the signatories of the "gallant counter-protest" which was "signed by the cream of British WOMANHOOD" (7) rather than the "*ladies*" (6) of the *Nineteenth Century* magazine who supported "the most deplorable piece of treachery ever perpetrated towards woman by women" (capitals and italics in original) (1). The prologue ends with Corbett feeling heartened by all the counter-protests, including those by men, showing "that at least some portion of the male sex recognises the enormity and injustice of saddling one-half of the human race with all the disabilities it is possible to heap upon it, except," she adds bitterly, "the disabilities of exemption from taxation"(8). This complaint, and others about the lack of fair wages for women, unequal marriage laws, and compulsory medical examination of women suspected of being prostitutes, makes the account of utopia that follows read less like a dream of a far-distant future than a protest against the inequities of the present. Such grievances are raised

[56] See Frank Harris's article in the *Fortnightly Review* for more information about the rival petition, and a sample list of signatories, organised by social class and profession. The replies by Fawcett and Dilke to the original petition appeared in *Nineteenth Century*, 149 (July 1889) 86-103. The whole controversy is discussed in Beaumont's *Utopia Ltd.* (121-3).

frequently within the text, either in conversation with the women and men of the future, who generally express incredulity over the misguided and unenlightened views of the narrator's contemporaries, or else as part of the history of the formation of the state. Corbett also expresses frustration over "weak-minded women" who resist change and calls for women to be more assertive, so that they can "make political and social equality of the sexes a realisation of the near future" (133).

Corbett's political engagement and polemical intent is further underlined by the plot of *New Amazonia,* which is minimal, even for the utopian genre. There is no sign of the traditional courtship plot of many utopian novels. Instead, the narrator finds herself sharing her sojourn in New Amazonia with "a perfect specimen of the British masher" (10), a self-regarding, opinionated dandy who pretends to the title of the Honourable Augustus Fitz-Musicus. The role of Fitz-Musicus is to act as a mouthpiece for masculine views current in Corbett's time, and to provide some humour and conflict, since the narrator has only approval for the society she is visiting. Fitz-Musicus also provides examples of the methods used by men to put down women through his assumptions about his own importance, his attempts at patronising the narrator, and his disparaging remarks about the women of New Amazonia. Fitz-Musicus, being a product of Corbett's times, also strengthens the sense that Corbett's business is not only with the future, but with the present of 1889, presented, as in *Looking Backward*, from the vantage point of an improved state that has long outgrown these abuses. Even the place names of New Amazonia reference Corbett's time, as the towns of future Ireland have been renamed for prominent late-nineteenth century women, with names such as Fawcetville, Beecherstown and Andersonia.

Corbett also uses the novel to refute, generally with indignation, some of the more common arguments used to justify women's subordination to men. Corbett begins by setting science against biblical authority, by rejecting the argument that woman was created from a part of man's body:

> Only a rib, forsooth! How do they know that woman was made out of nothing better than a man's rib? We have only a man's word for that, and I have proved the falsity of so many manly utterances that I would like some scientific proof as to the truth or falsity of the spare-rib argument before I give it implicit credence. (7)

Christian theologians interpreted woman as an imperfect man, and a source of sin and temptation. Corbett was well aware of the misogyny of the Church as an institution and provides her New Amazonians with their own matriarchal religion where they worship a benevolent, female “Giver of Life”, whilst retaining Christian morality and piety. Corbett blames St. Paul for the excessive misogyny of the Church, describing him as “quite as much bent upon insulting, humiliating and subjugating woman, as he was upon spreading the Christian cause” (107).

Corbett also rejected other common assumptions about the nature of women, such as the idea that women stood somewhere between humans and animals. Corbett takes this up with scorn: “To be ‘only a woman’ was equivalent in the minds of many male egotists to being only ‘something better than his dog, and something dearer than his horse’” (36). In Corbett’s view, such judgements were merely further proof of the double standard in relation to women. Men criticised women for being “weak-minded”, Corbett argues, then when women showed themselves capable of similar abilities to men they were accused of being unwomanly and “regarded as an object of horror” (37). Corbett also alludes to the debate over female originality when Fitz-Musicus declares disparagingly: “They [women] can never manufacture any thing equal to men’s work” (67). By placing the argument in the mouth of Fitz-Musicus, the spokesman of masculine unreason, after he has demonstrated his own inability at original thought, Corbett highlights the ridiculousness of this particular generalisation.

Corbett does not engage directly in arguments over the biological differences between men and women. Rather she presents a picture of female evolution as it might occur if untrammelled by the negative environment and culture of Victorian society. The women of New Amazonia are nearly seven feet tall and built like goddesses: “A magnificent Venus, a glorified Hebe, a smiling Juno, were here all united in one perfect human being whose gait was the very poetry of motion”(11). They enjoy good health and youth till well over a hundred years of age, and freed from restrictive clothing and social barriers to exercise, they are athletic and strong. These descriptions express a strong conviction that given the appropriate environment, there would be no limitation on what women could achieve. Corbett is unperturbed by apparent scientific evidence for the physical and intellectual inferiority of women, and assumes that science is on

her side. In New Amazonia, scientific advances will deliver the treatments that provide for rejuvenation and longevity, weather control, and clean fuel and transport, with much of this science being undertaken by women. Anita Rose argues that Corbett distrusted science and found it "necessary to marginalize and discredit the conventional scientific discourse and values of the late nineteenth century to imagine a more Utopian future" (9-10). However, far from showing a distrust of science, Corbett invokes science as the ultimate authority for New Amazonia's progressive development, noting the nineteenth-century antecedents of many New Amazonian inventions, including Professor Brown-Sequard whose experiments with using animal nerve extracts inspired the New Amazonian rejuvenation process, or the physiologist Dr. Austin Flint, who she credits with predicting a revolution in medicine (91). The main elements of any alternative scientific discourse can be seen in a dislike of vivisection and a concern for animal rights in general, as well as a focus on practical inventions for improving quality of life. Rose calls this "science that works in favour of community values" but it could also be called utopian science, based on an optimistic belief that science would be able to transform all the unpleasantness of everyday nineteenth-century life into a society that can be protected against the forces of weather, age, disease and over-population.

Corbett's faith in the utopian potential of science and its benefit for women is not combined with any attempt at proving women's biological superiority. The main assumption of difference between the two genders in *New Amazonia* is that of women's moral superiority over men. Corbett explains that once women had been given the vote, they "showed themselves so much more just, so much more capable of governing than men, that they invariably enacted none but strictly fair and impartial regulations" (37). By contrast, she argues that "man's political influence has in all ages proved corruptive and retrogressive" (111). This moral difference is the reason why men are barred from the higher echelons of government:

> The chief Governmental offices are all appropriated by women, in sheer self-defence, in the first instance, and, later on, because the world's experience goes to prove that masculine government has always held openings for the free admission of corruption, injustice, immorality, and narrow-minded, self-glorifying bigotry. (80)

Corbett does here seem to be admitting an intrinsic difference between the nature of men and women that five hundred years of equality would be incapable of eroding. However, her argument about the nature of men derives more from history than biology. Her authorities are “the world’s experience” and “in all ages”, not man’s innate selfishness or sexual appetite or other scientific constructions of masculinity. Her ideal state abolishes the Church, not just because it is a masculine-dominated organisation, but because she sees it as a corrupt institution. The monarchy fares no better despite its female incumbent, who she blames for “the incidents which ultimately resulted in the disruption of the British Empire” (23).

The closest Corbett comes to biologising the difference between men and women is when she pronounces that “The truly maternal instinct has no equivalent in the breast of man, and so long as none but men are the people’s representative, even so long will that people be deprived of a thousand rights which a just, earnest, womanly co-government would give them” (131). She links this maternal instinct to the proverbial “purity and wisdom of New Amazonian Government” (80). There is certainly evidence to show that the social purity movement, which was strong in the 1880s, turned to biological essentialism. Richardson argues that the purity movement “played a significant role in the post-Darwinian biologisation, and feminization, of morality [...] and began to feed off discourses of degeneration, biologising male sexuality as brutish if left unchecked” (48). Corbett’s social purity credentials are evident in the text. She describes the Contagious Diseases Acts, which gave legal backing to sexual double standards, as “the foulest and most disgusting legislation that ever disgraced the land”(35), and “purity” is undoubtedly one of the core values of New Amazonia. However, even though eugenics plays a pivotal role in the text, as discussed further below, Corbett’s concerns are more with social campaigns and alternative models for government than masculine sexuality, and her categorization of male and female behaviour is based more on observations of environmental factors than biological theory. Men are “arrogant idiots” and “egotists” (36), rather than threats to female purity. The women of New Amazonia treat Fitz-Musicus as a comic child, rather than a sexual threat, and his boasts that the women all admire him are clearly unfounded. Corbett also draws on proof from the outside world that women can do better than men by citing the example of Oskaloosa in Kansas where the all-

woman government was enthusiastically re-elected because “within twelve months the place had made such wonderful strides in the trifling matters of social morality, sanitation, and prosperity, that it is the wonder of surrounding towns” (131). Corbett’s resentment of men securing “complete immunity from the consequences of systematic libertinism and immorality” (36) is part of an argument against the double-standards of the legal system rather than a blanket accusation of masculine immorality. A man who spends his time “loafing about public houses or race courses, and half his nights in dens of infamy” is less capable of making moral judgements than a “clever, capable woman” (131), but not all women are clever and capable; some, such as those who refuse to support women’s rights, are “unreasoning imbeciles” (36). Also, not all men are like Fitz-Musicus, who Corbett admits is not a fair representation of the male sex. The men of New Amazonia are depicted as being “as charming as the women in physique and culture” (105), and a positive example is provided by the mechanic John Saville, who supports all the ideals of the New Amazonian state, apart from its discrimination against men. His positive portrayal suggests that Corbett does see hope for socialising men into living a moral life.

Another indicator that Corbett’s depiction of women’s superior morality is more about choice than biology is that the highest roles in government and universities are reserved for women who have never been married. Grant Allen described woman as “the sex sacrificed to reproductive necessities” (qtd. in Russett 4), but Corbett’s New Amazonians evade this fate by bribing the brightest and best not to reproduce: “Our laws and social economy hold out wonderful premiums for chastity, and the result is that all our most intellectual compatriots, especially the women, prefer honour and advancement to the more animal pleasures of marriage and re-production of species” (81). Beaumont describes New Amazonia as “a eugenicist fantasy” (*Utopia* 124), but in effect Corbett is reversing the usual eugenic paradigm of encouraging the most intelligent to breed. Instead, the most gifted women are reserved for a kind of priesthood of the intellect, based on the belief that “perfect clearness of brain, and the ability to devote oneself exclusively to intellectual topics are inseparable from the celibate state” (81-82), while the women of lesser talents settle for marriage. One reason for offering disincentives for marriage was to maintain a stable population, and avoid “the ineluctable evils forced on other States by

over-population" (81). Any parent of over four children is "punished for such recklessness by being treated as a criminal, and deprived of very many valuable civil rights" (47), a policy enforced in accordance with "Malthusian doctrines" (46). Malthus's argument for restricting births to avoid poverty and overpopulation were adapted by birth control campaigners to promote the use of contraceptive methods such as those recommended by Annie Besant, one of Corbett's role models.[57] In the *Women's Penny Weekly* "Minerva" complained about "Neo-Malthusians ... asking wives to adopt the nostrums of courtesans" when the real problem is that "maidens accept impure husbands" (10). Corbett's interest, though, was not in finding the best husbands, but in leaving women free to develop their public role by avoiding the biological necessity of reproduction altogether by not marrying. This solution was in line with the belief among feminists "that the position of all women could only be improved in as a society where there was a large class of celibate women" (Jeffreys 88).

Corbett's fellow writer of utopian fiction, Jane Hume Clapperton, was less convinced about the efficacy of celibacy, and saw contraception as an aid to female autonomy, as well as a powerful agent of eugenics. Clapperton was an early convert to eugenics, writing in her non-fiction work, *Scientific Meliorism and the Evolution of Happiness* (1885), that eugenics was "the new field of inquiry into which enlightened reason is now carrying its penetrative investigations" (325). She feared that natural selection was being undermined by "sympathetic selection" which allowed the weak and otherwise unfit to survive. The solution for her was a third kind of selection – "intelligent selection" – which, she argued, would "systematically secure the birth of the morally, intellectually, and physically fit" (336). Far from recommending celibacy, Clapperton, like Galton, promoted the idea of early marriage for the more desirable types of people. She was convinced that the laws of heredity were as rigorously deterministic as mechanical laws and that once these were known "disease would be found no more an accident than the storm that breaks upon the seaboard, or the volcanic flames that burst from the mountain-top" (330). She was quite radical in her belief that enforced celibacy was a social evil: "To demand celibacy of men and women, whose defective organisms it is not desirable to perpetuate, would be in hundreds of thousands of instances to

[57] For further information see Lucy Bland "Contraception, Morality and Malthus" in *Banishing the Beast* (198-200).

sacrifice unnecessarily present happiness to future gain" (333-4). Instead Clapperton advocated contraception to decouple marriage and procreation, maintaining that society need only concern itself with unions resulting in children:

> Marriage and parentage are not necessarily conjoined. It is with the latter alone that society properly deals. As guardian of public health, and of the coming race, it is entitled, nay required, to forbid the propagation of disease; but since, by careful use of artificial checks, parentage, and hence the propagation of disease, may be avoided, all adult individuals of ordinary public morality or conscientiousness are free to marry, as spontaneous impulse dictates. (334)

Clapperton also maintained that love must not be made subservient to eugenics, and that the production of healthy children was not the purpose of marriage. However, she believed that even though the theory of heredity was "a nauseous draught for mankind to swallow", it was of vital importance to the future of the human race (329).

In *New Amazonia*, eugenic measures are treated as just another element in a common-sense programme of social reforms, so a "medical certificate of soundness" is required before marriage (46) and the issue of defective heredity is dealt with in a couple of sentences between tooth decay and equality in marriage proposals:

> "I suppose malformed or crippled children are occasionally brought into the world even here. What becomes of them?"
>
> "They are at once sent to spend their term of probation in less material spheres." (89)

For Corbett and many of her contemporaries, such a response to disability was regarded as more humane than letting the child live. In an era of high child mortality, the eradication of hereditary weaknesses was seen as more important than finding cures or improving living conditions as it offered the potential of preventing such illnesses occurring in future generations.

A similarly coercive logic is applied to other areas of public health and safety. Food is "scientifically perfect" and therefore need only be eaten in moderation (58). Vegetarianism is mandatory because "[f]lesh eating is a habit which induces coarseness of mind and body, and robs both of the true beauty and vigour furnished by a vegetarian diet" (52).Infectious disease has been

conquered by “science and common sense” (90-1). Weather is controlled for the good of all through “altering the direction of a steady wind and thereby producing either wet or fine weather, by means of a huge artificially created vacuum” (53). Health is further protected by a complete ban on tobacco and alcohol. Euthanasia is practised in order to “liberate the spirit without any wasteful delay” (73). A similar policy is applied to those who are deemed incurably insane. Morality is enforced by extreme punishments, so any woman caught committing adultery is forced to take on menial work, while adulterous men are banished from the colony (82). Illegal immigrants are also subjected to forced labour then expelled. Duangrudi Suksang describes New Amazonia as containing “some of the features of dystopia”, singling out “reverse gender discrimination, infanticide of the handicapped, and continued restrictions against married women” as its worst features, but she concludes that “Despite its biases, Corbett's work allows her to present her viewpoint on women's suffrage and an alternative vision of society in which women's rule has brought about improved conditions for all women and men” (“Overtaking” 75, 83). Suksang does not condone the elements of New Amazonia which now strike us as undesirable, but is overlooking the fact that the biases she lists are intrinsic to Corbett’s version of the future, and that without them, there would be no nation of superior women. The *Women’s Penny Paper*’s review of *New Amazonia* has no concerns about the book’s agenda and concentrates on its positive aspects, reading it as “an amusing satire on present conditions, and a forecast of the future” (Dawson 118). For Corbett there was evidently little reason to doubt that equality, female governance and the sweeping away of corrupt nineteenth-century laws and institutions would inevitably lead to a better world, especially if allied with science and common sense. She could confidently assert that New Amazonia, with its aims of “[h]ealth of body, the highest technical and intellectual knowledge, and purity of morals” could “boast of being the most perfect, the most prosperous and the most moral community in existence” (47).

Jane Hume Clapperton’s fictional utopia *Margaret Dunmore: Or, a Socialist Home* (1888), a tale of a Fourierist-style experiment in communal living, offers a small-scale alternative to Corbett’s vision of the perfect female-run state. *Margaret Dunmore* concentrates on what can be done in the present day, and sees no need to invoke female superiority or a separatist ethos to achieve its aims. For Clapperton, women’s subjection to men represented a

great risk to progress, and the socialist home was a project to adjust gender relationships and carry out the conscious evolution which she proposes in *Scientific Meliorism*. For this, she suggests that the home environment itself needs to be radically changed:

> The home itself must evolve. It must take on some new form ere it will fulfil its obligation to the youth of each generation, elevating it emotionally, educating it intellectually, and training it to virtuous habits of innocent, happy life. (*Margaret* 59)[58]

Prevention of unwanted pregnancies is an important part of this process. Clapperton places "unhurtful scientific methods" of controlling births at the heart of her project for conscious evolution, arguing that "[f]or unhealthy persons to become parents is a crime against Humanity" (126-7). However, she is realistic enough to admit that "all schemes for a better social life, requiring an improved human nature, are only for realisation in the far future" (196). The goal of the home is to improve social conditions, in order to re-establish fellowship between men and women. Clapperton saw civilisation as having exacerbated the differences between men and women, but she believed that in the right social environment men and women could learn to co-operate so that "heart to heart they will pour into each the gold of the other's nature" (194-5) In *Margaret Dunmore*, Clapperton offers an alternative form of female utopianism which seeks to resolve the question of how men and women might live together and how the problems of sexual activity and pregnancy might be resolved without recourse to celibacy. Clapperton shows a consciousness of the importance of evolution in determining the future, but domesticates the concept of hereditary progress from high ideals to a more realistic daily practice which accepts the co-existence of sexual desire and morality.

3.2 Evolution and female superiority in Mary E. Bradley Lane's *Mizora*

Late-nineteenth-century North America had its own culture of feminist utopian fiction, characterised by a sense of social change and new opportunities following the American Civil War. Mary E. Bradley Lane's *Mizora*, which had its first publication nine years before *New Amazonia*, represents one of the earliest

[58] All subsequent references from *Margaret Dunmore*.

separatist utopias, and as such is often seen as a lost feminist classic.[59] It was first serialised in the Cincinnati Commercial in 1880-81, then reprinted as a book in 1889, a year after the publication of Bellamy's *Looking Backward*. *Mizora* describes an all-female society, full of interesting domestic inventions, no criminality or social divisions, and universal health and prosperity. However, the women of Mizora practise an extreme form of eugenics which has enabled them to reach the peak of physical, mental and moral perfection. This aspect of the book sits rather uneasily with the claims for it as a lost feminist masterpiece, as does its racial politics, essentialist notions of what constitutes the feminine, and the niggling question of what has become of all the men. As one critic of *Mizora* has pointed out: "Rumours of a utopia's foundation in androcide cannot fail to sully its reputation" (Anderson 86). In this section I explore some of the more problematic aspects of Lane's myth of female superiority, including gender essentialism, eugenics and implicit racism. I show how these issues relate to contemporary ideas on matriarchal societies, concepts of female moral superiority based on women's evolutionary role, and the socio-historical factors influencing attitudes to nature, science and race. I also assess whether the racial and sexual politics of *Mizora* discredit the empowering elements of this feminist utopia, and where its value lies for the modern reader and critic.

Mizora is narrated by a Russian political fugitive called Vera Zarovitch who discovers a wondrous land below the sea populated exclusively by women.[60] She finds much to admire in this world, from the chemically prepared food to the system of universal education, but is disturbed by the mysterious absence of men and the fact that she is the only brunette in a land of blonde, blue-eyed women. After living a long time amongst these women, Vera discovers the truth, which is that the women have found a way of reproducing themselves without men. The details are never explained, but some laboratory cloning process is involved, as Vera is shown a minute cell in violent motion under a microscope (101). There is certainly no mention of pregnancy or childbirth in the text, and the very idea of sexual involvement seems to fill the

[59] Mizora has been marketed to the twenty-first century audience as "the first known feminist utopian novel written by a woman" (back cover blurb of the University of Nebraska press edition in 1999) and "an 1880s radical feminist utopia" (Front cover of the Syracuse University Press edition 2000).

[60] The inspiration for Lane's heroine may have been Vera Zasulich, whose shooting of Trepov, the repressive St. Petersburg chief of Police in 1878 "made her a heroine both in Russia and abroad" (Engel and Rosenthal 62).

Mizorans with horror. “Our children come to us as welcome guests, through portals of the holiest and purest affection” (130) Vera is told by her Mizoran friend, while she is looked at with “loathing and abhorrence” when she admits to having a husband and son. Lane’s scientific justification for the single-sex reproduction of the Mizorans is that “the MOTHER is the only important part of all life” and that in the “lowest organisms no other sex is apparent” (103, capitals in original). Comparing women to lower forms of life was a risky strategy for a feminist, as it played into the idea of women being less evolved than men. For example, American evolutionist Edward Drinker Cope thought that the earlier maturity of women meant that they were not fully developed, while Herbert Spencer suggested that the need to reserve energy for reproduction meant that women were under-evolved by comparison with men (Tuana 44-7). However, the comparison to earlier organisms and the importance of the mother, also suggests an alternative history of evolution where women are seen as the norm and men as an aberration. Feminist Eliza Burt Gamble in her book *The Evolution of Woman: An Inquiry into the dogma of her inferiority to man* (1893) argued that women represented a higher form of evolution than men. They were “the intelligent factor” in sexual selection, and therefore “the primary unit of creation” (29, 31). Gamble’s study of prehistoric societies also led her to conclude that "the higher faculties are transmitted through the mother" (80). She argued that:

> In whatever direction we turn, evidences are abundant going to prove that under simpler and more natural conditions, and before corrupted by our later civilization, mankind were governed largely by the instincts developed within the female constitution, and that long after her supremacy over the male was lost, the effects of these purer conditions were manifest in the customs, forms and usages of the people (101-2).

Gamble drew on the ideas of German anthropologist Johann Jakob Bachofen to account for women’s supremacy. Bachofen argued in his 1861 book *Das Mutterrecht* that the age of patriarchy was preceded by an era of matriarchy where inheritance took place through the female line. Bachofen’s thesis was much disputed, but proved influential on subsequent thinkers.

Lane’s matriarchal society refers to the Great Mother or Nature as being the final authority in Mizora, endorsing the idea of the mother, and matriarchy, being the more natural form of social organisation. However, Lane is also

evoking another aspect of lower organisms, which is that they reproduce asexually. In Mizora men have been allowed to die out completely. They were seen as representing all the negative aspects of human society, such as war, violence, immorality and vice, while women, in line with Gamble's argument, are the source of the higher elements of human nature. The desire of Mizorans to escape what was seen as the lower or animal part of human nature is reinforced by the fact that animals have also been eliminated in Mizora, superseded by chemical food and machinery (54). The Mizorans' belief that "the association of animals is degrading" (113) suggests that despite their veneration for Nature, the women of Mizora are disquieted by nature's earthy reality, and more interested in artificially replicating nature than embracing it. They have laboratories where they strive to manufacture artificial fruits and vegetables (47), and "closely counterfeit the processes of nature" in order to produce chemical versions of milk, cheese, cream, butter and meat (56). For them, the artificial products of their own science are infinitely preferable to the natural products of nature, with all their impurity and unpredictability. This aspect of *Mizora* reflected trends in late-nineteenth-century America, where agriculture was becoming industrialised; Cincinnati itself was one of the meat capitals of America. At the same time, women were becoming less involved with agricultural activities such as milking cows and making their own dairy products, and could aspire to a life removed from domestic animals.[61] Although women were romanticised by men as representing a link to nature, Lane's utopia gives expression to an opposite feeling amongst women of wanting to get away from the messy realities of childbirth and animal husbandry, and looking for a cleaner domestic environment, where food could be guaranteed as safe and free from contamination.

According to Merchant, the industrialisation of agriculture was a product of a mechanistic or instrumentalist view of nature which the capitalists of nineteenth-century America used to justify turning nature into a laboratory for experimenting on improving agricultural yields and profits (*Death* 199). In *Mizora,* Lane shows a similar instrumentalist view of nature, focussed on the

[61] Merchant sees a further consequence of this change as restricting women to a reproductive role: "As male famers began to specialize in women's traditional dairy, poultry, and vegetable production, and as textile mills took over their clothing production, woman's primary domain was redefined as reproduction" (*Ecological* 233).

potential for controlling nature by following its laws.[62] Mizorans are described as having passed "beyond the boundary of what was once called Natural Law" which has enabled them to become "Mistresses of Nature's peculiar processes" (90). In *Mizora*, the association between women and nature, despite the rhetoric of motherhood, is the traditionally masculine one of control and domination, rather than the biologically constructed special relationship between women and nature, based on the process of childbirth. The same inversion of male and female associations occurs in relation to science. Science and scientific work are normally seen as masculine domains, but in *Mizora* science is personified more frequently than nature, and often given female attributes. For example, there is "benevolent and ever-willing Science", who is a divinity or a goddess, favouring "persistent and earnest effort in a sensible direction" (121). The terms science and nature also seem to be used interchangeably. Nature is God, but Science is the Goddess. Mizorans devote themselves to science in order to discover the secrets of nature, and it is science that "has taught [them] how to make [Nature] obey us."

Lane, like Corbett, consistently represents science in *Mizora* as positive and empowering, even if in reality it was often used to support regressive social ideas such as women having smaller brains, inferior strength and a tendency to hysteria. Nevertheless, many feminists adopted scientific arguments as a way of challenging traditional authority in what Flavia Alaya calls "an alliance of heresies against a common orthodoxy" (262). Evolutionary science offered the opportunity to refute biblical and legal constructions of women as inferior. Darwin's *Descent of Man* is often regarded as problematic for women, since his theory of sexual selection implied that men had evolved through the necessity of competing for women while women had failed to evolve. But as Levine points out in his reassessment of Darwin's legacy: "he is also the man who, against the whole scientific and cultural establishment, introduced the concept of female choice into nature" (177). Darwin's female contemporaries also took a positive view of the evolutionary arguments over the natural capacities of women, seeing an opportunity to engage with Darwin's arguments to present the case for female equality. American women's rights activist Antoinette Brown

[62] Lane's debt to 17th and 18th century natural philosophers can be measured by a rather unusual heading for Chapter IV (Part 2) (106) which contains a quote that is attributed to Bacon, but is actually from David Hume's essay "Of National Characters" (1748).

Blackwell in her 1875 work *The Sexes Throughout Nature* questioned Darwin's interpretation of the data on women, emphasising the factors that would ensure that female animals would evolve in parallel with their male counterparts:

> The higher the development of the species and the more differentiated in structure and functions, the greater need would there be of a complex opposite polarity of activities in the uniting elements. Therefore natural selection acting during immense periods of time would be able to maintain, through survival of the fittest, an approximate equality between the sexes at all stages of their development. (33-4)

Drawing on her own experience as a teacher, Blackwell argued that women were as highly evolved as men, with just as great an intellectual capacity, though with strengths in different areas to men (Kohlstedt and Jorgensen 274-8). However, she did not question Darwin's basic hypothesis of sexual divergence, preferring to concentrate on complementarity and partnership between the two sexes. She also saw evolution as supporting arguments for social changes to the position of women through the supposition that women were evolving towards greater complexity (Richardson *Against* 36). Darwin's *Descent of Man* also proposed an important role for sympathy in the survival of social groups, a trait which was seen as being innate to women through their role as mothers, an element which was picked up by Gamble in her argument for women's superiority. Neither Blackwell nor Gamble found it necessary to contest the idea of biological determinism in these roles, preferring to accept the scientific basis of the observations, and argue instead over the interpretation of the data.

Lane's utopia bypasses much of this argument by downplaying the biological elements of evolution and focussing instead on its moral and spiritual aims. Her view of progress owes more to the Lamarckian idea of the inheritance of acquired characteristics and evolution through effort and industry than to Darwinian concepts of adaptation to ecosystems or struggle for survival. Vera is lectured on "the duty of every generation to prepare the way for a higher development of the next" rather than thinking in terms of their own lifetime (104). Lane's version of the improving power of female sexual selection is to remove male choice altogether, by allowing only the elements of the supposedly superior female nature to be passed on. Evolution could then progress beyond the needs of the body to moral perfection. Lane's Mizorans assert that:

> The moral life is the highest development of Nature. It is evolved by the same slow processes, and like the lower life, its succeeding forms are always higher ones. Its ultimate perfection will be mind, where all happiness shall dwell, where pleasure shall find fruition, and desire its ecstasy. (104).

Like Butler, Lane saw a connection between bodily health and morality, as the Mizorans felt that a "people universally healthy is sure of being moral" (108). In Mizora all hereditary diseases have been eliminated, and everyone is so healthy that the profession of doctor no longer exists. Criminality on the other hand is seen as an incurable abnormality of the brain. Education and better social conditions might reform those who had engaged in petty crime through necessity, but major crime left what Lane described as "an ineradicable hereditary taint" for which "the only remedy was annihilation" (109). Criminals, like men, needed to be phased out.

As well as eliminating men and criminals, the Mizorans also engaged in what sounds suspiciously like ethnic cleansing. When Vera asks what happened to the people with darker hair and eyes, she is told they were "eliminated" because the Mizorans believed that "the highest excellence of moral and mental character is alone attainable by a fair race." (92). There is no justification given for this belief within the text, and it is hard not to read into it the racial fears of American middle-class white women in the aftermath of the American Civil War. Certainly Cincinnati, a northern borderland city located across the river from the former slave-holding state of Kentucky, was the site of intense pro-and-anti-abolitionist divisions and racial tension that support this interpretation.[63] Katherine Broad sees Lane as vocalising "white nativist anxieties over perceived threats to racial and social purity" (248), while Darby Lewes notes women's frustration over the Fourteenth Amendment which gave the vote to black males while still denying it to women, a frustration which led to a new element of racism in women's suffrage circles (46-7). The morally pure blonde, blue-eyed women of Mizora also conform to the ante-bellum image of the Southern "belle-ideal" of womanhood which valorised chastity, purity and

[63] For debates over slavery and abolition in the antebellum years see Ellingson (1995) and H.L. Taylor (1993). Taylor also provides an overview of racial tension in Cincinnati throughout its history. For more information on the mixed elements of Cincinnati's identity and the development of the National Underground Railroad Freedom Center which attempts to address Cincinnati's long history of racial conflict see Frederickson (2008).

motherhood above all else. However, the evocation of the Southern belle is in itself suggestive of some dissonance, since Lane was from Ohio which was on the side of the abolitionists in the Civil War, and in *Mizora* she criticises slavery as "a canker that eats into the vitals of any nation that harbours it" (96). Lane's dark-haired heroine Vera, from a cold, Northern climate, represents a site of resistance to some of the more extreme acts of the Mizorans. She understandably disagrees with the Mizorans over their assessment of those with dark complexions, and believes that Mizoran superiority is more due to "the formation of superlative character than the elimination of the dark complexion" (92). She also feels a kinship to the men she sees represented in a hidden portrait gallery, and weeps for the first time since coming to Mizora when she sees their pictures (91), and longs for the "wild, rough scenes" of her own world (115).[64]

There is also evidence in the text for an alternative reading of the fair women of Mizora as fairy folk. Vera travels through a rainbow to arrive in Mizora and wonders if she has "drifted into an enchanted country, such as I had read about in the fairy books of my childhood" (15). Later, alarmed by the revelations about Mizorans, she asks if "the lovely blonde women" were "fairies – or some weird beings of different specie, human only in form?" (95) Mizorans are described as exceedingly beautiful, graceful, sensitive to colours we cannot see, and in possession of melodious voices. They are goddesses, naiads and possessed of unearthly loveliness (84). Vera's friend Wauna, when brought back to the real world of nineteenth-century Europe and America, is too delicate to survive there. Even the quest to remove all "deleterious earthy matter" from food suggests the unearthliness of fairy food. This reading opens up an alternative interpretation of the relationship between the "fair" race of Mizora and the mixed races of Vera's own time and place, and suggests something supernatural about Mizora and its lack of men that shows that the author at least did not wish this aspect of Mizora to undermine her ideas for social improvement. Vera herself concludes that the absence of men was not "criminal and ignoble" but "weird and mysterious" (88).

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[64] See Lydia Fisher "Darwinism meets Russian Mutual Aid" for an extensive treatment of the issue of race in *Mizora* and a discussion of the role of Kropotkin's *Mutual Aid* in Lane's construction of a racially homogeneous society.

Further evidence of Lane's ambivalence towards the issue of an all-female state is that at one point she directly criticises the action that led to Mizoran separatism. She describes how a small minority of "wise women" offered to "form a Government that should be the property of all intelligent adult citizens" (100). However this more inclusive approach was ruled out by anger at past injustices by men. There is a sense of missed opportunity in this description which is at odds with the certainty of the Mizoran women over the necessity of removing men. However, Lane is writing a serial for a newspaper, and a country of blonde blue-eyed women who kill off all the men is more likely to sell newspapers than a co-operative pact between men and women to reform government. The melodramatic declaration at the end of chapter eleven underlines this point: *"At the end of that time not a representative of the sex was in existence*" (italics in original) (101). Nevertheless, the less dramatic version of reform creeps back in a couple of chapters later when Lane describes a process of gradual reform which does not involve removing all the men. Instead social improvement is achieved through eradicating disease, establishing fair wages, guaranteeing full employment, and providing universal education (107).

The dramatic removal of men, and the Aryan looks of the female population, has tended to distract attention from the more traditional eugenic measures which Lane proposes. Although there was no eugenic movement as such in 1880s America, and while Lane does not cite Galton directly, she proposes measures that were central to eugenics. In *Mizora*, statistical surveys and physicians reports are used to identify those with hereditary diseases and prevent them from having children. The whole population is also tested for less visible hereditary disease, and criminals are also barred from reproducing on the supposition that crime is hereditary (108-9). The Mizorans recommend that the mentally disabled be treated like "the useless weeds in your garden" instead of being housed in asylums, which Vera describes resentfully as "palaces" (61).

As already noted, *Mizora* has often been seen as the earliest attempt at imagining what a female-only world might look like. Lydia Fisher describes it as "the first significant, all-female utopia written in the United States" (181). Although Annie Denton Cridge's *Man's Rights* (1870) predates *Mizora*, it is a straightforward role-reversal story which satirises gender stereotypes, but does little to show an alternative female-centred society. *Mizora* was written before *New Amazonia,* which shares many of the interest of Mizorans in better food,

social purity and scientific advances. Charlotte Perkins Gilman's *Herland* from 1915 may also have been influenced by *Mizora*, but Gilman hopes that Herland's values of co-operation and altruism will eventually be adopted by both genders.[65] Lane is the only one of these early feminist utopian writers who felt it necessary to permanently remove men from utopia to achieve her vision of a feminist society. While female-centred domestic developments are important to the text, I would argue that the elimination of men is a surrogate for the elimination of the physical, the mortal, and human passions as whole, and that Lane's utopia is not a radical rewriting of women's role in society, but a semi-visionary representation of the quest for moral and spiritual improvement through science, and the perfecting of human nature.

Mizora was written as a serial in a newspaper with Republican sympathies, and must have been well enough received by its readers for the publisher Murat Halstead to decide to publish it as a book in its own right. No doubt references to safer food, improved means of transport, and domestic labour-saving devices would have struck a chord of interest with many female readers, but the mystery element, kept up for half the book, must also have contributed to its success, along with the lavish descriptions of fairytale dresses and exotic architecture. *Mizora* is more readable than many a utopian novel, but its value for the modern reader is not in the plot or the imaginative details, but in the social attitudes and assumptions of its time that the text reveals. Lane was not a professional writer, but a teacher, and her serialised story provides a snapshot of views that might otherwise have gone unrecorded. It is easy to criticise Lane for racism and gender essentialism, but she is writing from a standpoint where evolution and eugenics seemed to offer real hope for improving society. Ultimately, however, the scientific and social ingredients that went into Lane's version of utopia were empowering for women but limiting. Constituting Mizora as a matriarchy allowed Lane to develop a female-only society, but also meant that she was sidestepping the realities of women taking on roles in a mixed gender society, or working through realistic ways for women to move from a position of oppression to equality with men. Similarly, by populating her society with women who have developed so far beyond the

[65] Fisher argues that the similarities between *Mizora* and *Herland* "are too marked to be coincidental" and that Gilman must therefore have had "some direct or indirect contact with *Mizora*" (182).

human as to be like fairy beings or goddesses, she reinforced masculine myths of idealised womanhood, whilst simultaneously suggesting that ordinary women are not ready for utopia. Moreover the model of evolution which Lane uses, drawing more heavily on Lamarck than Darwin, meant that there was no uncertainty or randomness in the upward progress of humanity, nor space for sympathy or sentiment. Therefore, by invoking a deterministic respect for the laws of nature, moral evolution comes about in *Mizora* as a result of immoral processes. Finally, whilst science is the tool that frees the women of Mizora from slavery to men and their own biology, the application of the same rigorous scientific laws was already being used to argue against the case for women's equality. It is, in the end, the paradoxes and imperfections that make *Mizora* interesting to read. The juxtaposition of high ideals and flawed concepts encapsulates a point in time when women recognised the injustice of their position in society but did not know how to move beyond it. The novel ends in pessimism. Vera's husband and son are dead, and her Mizoran friend Wauna fails to survive in the real world. All that is left to Vera is a hope that future generations will be better through the promises of universal education and the deeply questionable practice of eugenics.

3.3 *Unveiling a Parallel*: Equality, Cupid's Garden and Moral Evolution

Unveiling a Parallel (1893) by Alice Ilgenfritz Jones and Ella Merchant, which was published thirteen years after the first appearance of *Mizora*, presents a far more confident position for women than its predecessor. The writers see no requirement to disempower men in order to develop a society where women hold key roles. Instead the men and women co-exist, though still with their own separate customs and social institutions, in a society which accepts that there is no intrinsic difference between the nature of women and men. Despite being set on Mars, there is very little emphasis on new technology, and science features mainly as an interest in astronomy. Nevertheless, evolution plays a strong role as the lever for development, in the form of an evolutionary religion of spiritual progress which assumes that biological advances can be achieved through conscious direction. In my reading of *Unveiling a Parallel* I look at how Jones and Merchant build their arguments for equality between men and women, and their strategy for debunking myths

about female nature. I also consider how this utopian text dramatises the tensions in the demands for female equality through the portrayal of a flawed but successful business woman, while at the same time representing traditional female values of morality and chastity as the ultimate goal of an evolved, perfected version of humanity.

The two authors of *Unveiling a Parallel* lived in Cedar Rapids, Iowa, another Northern American town dominated by the meat packing industry. Alice Ilgenfritz Jones, the daughter of a furniture dealer, was a published writer of fiction and travel essays until marriage led to a hiatus in her writing career; her co-author, Ella Merchant, was the daughter of a doctor who became the wife of a printing entrepreneur (Kolmerten xi-xiv). Both women held a position of middle-class respectability, but Jones at least had the benefits of the broader horizons of an education at a mixed-sex seminary in Wisconsin and the opportunity to travel. No information is available on how the two women came to write the book, or what their respective roles in its creation were. However, there is a definite sense of two minds being at work and interacting with each other. Most works of utopian fiction are based on one dialogue, between the traveller from our world and the guide to the new, but *Unveiling a Parallel* has several dialogues. There is the primary exchange between the unnamed male narrator and his male guide, Severnius; an alternative viewpoint presented by Severnius's sister Elodia; and finally the dialogue around the difference between Elodia's values and those of the Caskians. The Caskians are a separate nation which has engaged in developing a higher form of morality and eliminating hereditary flaws within its population. It is unusual for utopian fiction to offer up two parallel societies for the reader to choose between and certainly *Unveiling a Parallel* appears to be playing with the expectations of the utopian genre by initially building up the city of Thursia as a utopian place before revealing its imperfections, and then proposing its rival Caskia as the true utopia. Yet Caskia, is given so little space within the text, and its characters seems so lifeless compared to those of Thursia that it is hard to be convinced that this society has the whole-hearted engagement of both writers.

At first glance, Thursia does appear to be a typical utopia. The narrator lands in a beautiful city, is refreshed with fruits freshly plucked from a tree and taken to "a superb mansion built of dazzling white stone" (3). The manner and grace of the Thursians convince him of their "high state of culture" (3), while

listening to “ineffable music” in Severnius’s private sanctuary provides an experience of spiritual uplift (11). However, the apparent utopia has to conform to the narrator’s standards of morality, and prove itself worthy of his love. As Jean Pfaelzer points out, nineteenth-century utopian fiction often borrows elements of its plot from the sentimental romance (6) and in *Unveiling a Parallel* each utopian society is explicitly linked to the character of a woman and the narrator’s desire to find love.[66] In the case of Thursia, the narrator’s fascination with Elodia takes over as the motivating force for learning about the life of the city, and also provides an opportunity for Jones and Merchant to explore preconceptions about the nature of women. At the same time, their bold sketch of a social order where women can behave in the same way as men becomes the primary reason for the rejection of Thursia as a utopia. This tension between the case for women as men’s equals, and the problems arising from women adopting male values suggests a sense of unease over the position of working women in late-nineteenth-century America. The Association for the Advancement of Women (AAW), an organisation that aimed to improve the conditions of women, saw promotion of employment for women as the key to citizenship, [67] but the reality for many women joining the workforce was that they ran the risk of having their morality questioned and being seen as less respectable than their married counterparts (Wood 34-8). Jones and Merchant initially present their business woman heroine Elodia in a very positive light. She is not represented as unwomanly despite being nearly as tall as the narrator. Her grace, carriage and beautiful face all attest to her femininity in the narrator’s eyes. However, she is also keenly intelligent and lively, and not at all pious. The narrator is surprised that the brother and sister treat each other with the easy camaraderie and respect of equals, and amazed to discover that Elodia is a successful banker, on the city council and the head of a school board. Like the character of Fitz-Musicus in *New Amazonia*, the narrator’s role is to present the typical masculine arguments against female equality, but as the only representative of late-nineteenth-century America, he is also forced to provide data for both sides of the argument. Therefore he is surprisingly well-informed

[66] *Unveiling a Parallel* was subtitled “A Romance”, even though it was published by Arena Publishing, a specialist in the area of social reform (Kolmerten ix).
[67] The AAW held its first meeting in the American Midwest in Des Moines, Iowa (about 100 miles away from Cedar Rapids) in 1885, attracting 200 delegates (Wood 36).

about the “Woman Question” and can supply information on the number of women working as teachers, clerks, stenographers and type-writers in his town, and report that women’s wages in New York are so low that they are only equivalent to a third of the wages of a Thursian stableman (24-5). The narrator also talks of women aspiring to become “doctors, lawyers, editors, artists, writers” (26). Nevertheless he continues to fall back on the stereotypes of women being more religious than men, lacking in “the inclination to assume grave public duties” and not being men’s political equals (24-8). Most of the narrator’s assertions about women are robustly disputed by Severnius, who suggests that what the narrator sees as a woman’s nature is more a result of conditioning than nature. The narrator himself has to admit that not all women are angels: “I had a sudden vision of a scene in Five Points: several groups of frowsled, petticoated beings, laughing, joking, swearing, quarrelling, fighting, and drinking beer from dirty mugs”(30). Five Points was a notorious slum area in New York City, and the use of a word like “frowsled”, with its connotations of disarray and dishevelment, coupled with the detail of the dirty mug, suggest a real fear of what happens when women become out of control, and act in a similar way to men. This flip side to equality remains latent in all the positive arguments about equality. One of the generalisations about women that is not disputed is their “horror of speculation” (24), which is an early indication that although Elodia might be beautiful and philanthropic, she is already being questioned for doing a job that is not on the approved list for aspiring working women. Mostly, though, equality between men and women is seen as a positive thing, and represented as completely natural. This is backed up by the Martian creation myth in which, instead of woman being created from Adam’s rib, “God breathed a soul” into a pair of animals emerging from an enchanted lake and “they were Man and Woman, equals in all things” (32). Severnius also denies that there is any difference in nature between men and women:

> You would not have me think that there are two varieties of human nature on your planet, corresponding with your sexes, would you? You say ‘woman’s’ spiritual fibre and fine moral sense, as though she had an exclusive title to those qualities. My dear sir, it is impossible! you are all born of woman and are one flesh and blood, whether you are male or female. (47)

His point is that society has made the difference between men and women, and that it is only the restrictions on women's behaviour that have made them seem more gentle and abstemious than men. The crux of the argument is that virtue is a habit, not an inherent difference between the genders.

As the exploration of Thursian society continues, the role of virtue becomes increasingly important. The positive initial impression of Elodia is continuously undermined by discoveries about her lifestyle and history. The focus of the parallel moves from highlighting the absurdity of the double standards for men and women, to investigating the moral consequences of the erosion of the double standard, as women start behaving as men do. Elodia is found to belong to a club for women with its own reading room, gymnasium and swimming baths, but also its own wine cellar, where, shockingly, women indulge in drinking. Woman do not smoke, but have their own equivalent, vaporising valerian root with alcohol, leading to noxious smells and health risks, as well as segregated "vaporizing" carriages on the train. Significantly, there are no mixed men and women's clubs, and the separate habits of smoking and vaporising also lead to separate spaces for men and women. This demarcation of space reflects the segregation of men and women's spaces in American cities of the late nineteenth century. Working men tended to frequent various masculine labour organisations, usually centred on saloons while women's spaces were mainly to be found in shops, hotel parlours and parks (Wood 52-3). In Davenport Iowa, there were eighty-eight saloons available to men in the downtown area providing toilets, free lunch, loans, meeting spaces for men's groups and a shared masculine space. Facilities for working women in the same area were more difficult to come by, and so the women of Davenport founded their own club rooms in 1887, "The Lend a Hand", which offered a library, changing rooms, space for lunch, lectures and evening concerts (Wood 51-2). Women's clubs of the 1880s were also seen as a way for women to engage in public policy, and exercise some of the influence denied them through lack of suffrage. *New York World* columnist Jane Croly saw women's organisations potentially forming an entire shadow government (Wood 47), which was perhaps what Bellamy had in mind when he developed his separate women's corps in *Looking Backward*. Similarly, although Jones and Merchant gave the women of Thursia a public role, and equality to men, they still found it hard to imagine an integrated society where men and women worked and

socialised together. Moral boundaries remained troublesome when it came to imagining equality. Public spaces for women, like the “Ladies’ Mile” at the heart of New York’s shopping and amusement districts, were redefining the expectations of respectable women’s public behaviour, and causing an uneasy sense of transgression (Scobey 48-50). Merchant and Jones capture some of this uneasiness in their most damning illustration of the consequences of female equality: Cupid’s Garden, an Arcadian retreat where upper class women go to meet their lovers. This beautiful parkland is the home of vice and prostitution, and allows for discrete liaisons without women losing their reputation. Elodia herself has indulged in “love, passion, sentiment” without responsibility (101), resulting in an unacknowledged illegitimate child. The moral debate over whether Elodia as a woman was more reprehensible than a man in hiding her transgression goes on for several pages. Elodia has the best of it, though, with her fable of how each gender came to gain its alleged qualities:

> There was a great scramble, and your sex, having some advantages in the way of muscles and limb ... pressed forward and took first choice. Naturally you selected the things which were agreeable to possess in themselves, and the exercise of which would redound to your glory; such virtues as chastity, temperance, patience, modesty, piety, and some minor graces were thrust aside and eventually forced upon the weaker sex, - since it was necessary that all the Qualities should be used in order to make a complete Human Nature. (107)

Jones and Merchant are arguing against the theory of the complementarity of male and female nature which had become another way of stereotyping women as being the opposite of men and biologising their differences. Elodia sums up the absurdity of this position: “How charming to have the one nature dovetail into the other so neatly!”(107). Unusually, for a debate within utopian fiction, neither protagonist is entirely happy with the outcome – Elodia is angry and the narrator is disillusioned. While it is clear that Elodia and Severnius win the argument over the absurdity of supposing women’s nature to be more moral than men, the narrator has a strong emotional reaction against the reality of accepting this: “I was sick at heart and angry, – not so much with Elodia as with the conditions that had made her what she was, a woman perfect in every other respect, but devoid of the one supreme thing, – the sense of virtue. She was now to me simply a splendid ruin, a temple without holiness” (110). This

extreme disillusionment runs counter to the carefully convincing arguments in favour of female equality and lead to a different conclusion, represented most strongly by the narrator's reaction to watching female wrestling, which he experienced as "a physical as well as moral nausea" (70). The idea of women behaving in the same way as men is represented not as empowering, but as deeply troubling.

The solution which Jones and Merchant offer to the conundrum of how to make women equal to men without them losing their virtue is to be found in the development of a higher form of human nature. The Caskians, the second civilisation described in the book, have embarked on a conscious programme of self-directed evolution, involving a centuries long endeavour "to counteract and finally to eradicate hereditary evils" (53). Caskian society has all the characteristics of a typical utopia, such as health, longevity and absence of poverty (117-18). The Caskians believe in cultivating all three elements of what they call "the triple nature" – the spiritual, intellectual and physical (57). Although they are so intellectual and spiritual that they sometimes forget to eat, they are responsive to the material world of nature and feel that "physical sins – neglect or infringement of the laws of health – are classed in the same category with moral transgressions" (127). They are also so sensitive to their own conscience that they no longer need laws and punishments, since they "have emancipated themselves from the thraldom of the law by absorbing its principles into themselves" (56). They have abolished the speculative capitalism of stocks and shares that Elodia pursued and condemn all forms of gambling as a "mad fever of greed" (134). However, the most notable feature of the Caskian development towards perfection is that their children are conceived in what is described as "immaculate purity" (58). As with *Mizora*, there is no scientific explanation of the process. Men and women do still marry and have children, but "they are lovers on the highest plane" (59), and "the law of chastity is graven in the inmost heart" (60), suggesting that sexual reproduction has been superseded by a non-sexual process. The two Caskian children that the narrator meets are described as being "as beautiful as Raphael's cherubs ... two perfect buds of the highest development humanity has ever attained to" (114). Budding suggests plant reproduction, and this theme is also picked up with Ariadne, the Caskian woman who replaces Elodia in the narrator's affections: "She resembled some elegant flower whose nature it is to be delicate

and slender. She seemed even to sway a little, and undulate, like a lily on its stem" (130). The development of the Caskians is also compared to the cultivation of roses: "God planted the species, a crude and simple plant, and turned it over to man to do what he might with it; and in the same way he placed man himself here, – to perfect himself if he would" (151). Horticulture as an analogy gets away from the randomness of natural selection and the moral issues of sexual reproduction. Rational selection of marriage partners by women is shown to be an imperfect vehicle for improvement amongst the Thursian where immoral women still manage to persuade gullible men to marry them, while others such as Elodia determine not to marry at all. Instead, the Caskians look to "the principle of differentiation" to produce the equivalent of the chromatic variety of intelligent horticulture. Although Mendel's work on cross breeding different plants was not rediscovered until 1900, horticulture was becoming recognised as a science in its own right. Jones and Merchant based their concept of hereditary progress on horticulture, and so accounted for the variations within the Caskian population by explaining that: "Cultivation, though it softens salient traits and peculiarities, may develop infinite variety in every kind and species" (119).

The key change in Caskia's evolutionary process is the suppression of lust, which is seen as a crime, even within marriage:

> This matter of animal passion has been at the bottom of untold crimes and unnumbered miseries in our land. ... We ostracize the bastard; he is no more impure than the offspring of legalized licentiousness, and the law which protects the one and despises the other, cannot discriminate in the matter of after effects, cannot annul or enforce the curse of heredity. (59)

Marriage was often seen as legalised prostitution, since, once married, women had no choice but to submit to the sexual demands of their husbands, and control over this aspect of marriage was important to feminists. Annie Besant argued that marriage needed to "include satisfaction for mind, heart and tastes as well as for body" (qtd. in Bland 149), which is more similar to the Caskian ideal of cultivating the triple nature of body, mind and spirit, than complete chastity. However, at a time when the main methods of birth control for most married couples were withdrawal or refraining from sex, promoting the ideal of chastity within marriage was an important means of controlling family size. The

success of such strategies can be shown by the fall in the average number of children born to white women in America from seven in 1800 to less than four by 1900 despite the absence of widespread use of contraception (D. Smith 43). Moreover, chastity was often seen as key to the advancement towards a higher form of life, and a prerequisite for a spiritual form of evolution, such as proposed by the Theosophical Society which attracted a number of feminist supporters, including Annie Besant and Henrietta Muller, founder of the *Woman's Penny Paper*. Bland argues that the attraction of an organisation like the Theosophical Society to feminists was partly its recognition of both male and female principles as being necessary for spiritual evolution, and partly the commitment to celibacy of the inner circle (167). There is also an element of traditional Christian morality to Jones and Merchant's emphasis on chastity. The curse of heredity that the Caskians are trying to evade is original sin itself, as becomes clear when the Caskian children are described as having "no germs of evil" and "no Adam's curse" (114). The Caskians believe in the Rise of Man rather than his Fall, and work towards perfection through love. The Caskians also praise America as a land of great promise, destined for "future grandeur" (136), evoking the idea of the manifest destiny of America as the New Jerusalem.[68] This idea of America as the promised land also suggests how Jones and Merchant are using their two parallel societies, both to warn of the dangers of capitalism and immorality of the new urban America that they see coming into existence around them, and renew the Covenant of their Puritan forefathers through holding up Caskian society as the ideal that America is destined to achieve.

Unveiling a Parallel offers all the confidence in the abilities of women shown by *New Amazonia* without being marred by separatism and essentialism. However, the utopian potential of the vision of equality is undermined by doubts about the moral status of independent working women. The acceptance of the equality in nature between men and women is what makes *Unveiling a Parallel* seem so different from *Mizora*, and yet, taken as a whole, *Unveiling a Parallel* can be seen as employing different tactics to make some of the same points as *Mizora*. In *Unveiling a Parallel*, spiritual evolution beyond the material world is still seen as more important than achieving equality in the current imperfect

[68] See Sacvan Bercovitch's *The American Jeremiad* (1978) for further discussion of American exceptionalism.

world. While women are no longer set up as morally superior to men (in fact the greatest spirituality in the text is represented by three men, the narrator, Severnius and the Master), the same areas of human nature which were rejected as exclusively masculine are still being rejected in *Unveiling a Parallel*, in the form of lust and animal passion. Nevertheless, the overall impact of *Unveiling a Parallel* on its readers is much more positively in favour of the realism of Elodia than the idealism of Caskia. Kolmerton comments: “Like so many other twentieth-century readers, I prefer the lustful Elodia to the sweet Ariadne” (xxxvii), and suggests that Caskia is there to mediate between the radical ideas of the first part and the likely moral responses of their readership. I propose instead that these disparities represent the negotiation between the views of the two writers. Elodia has too many good lines not to have the support of at least one of her creators, while the idealism of Caskia is too carefully constructed to be just an afterthought to make the book morally acceptable. Also the strong visceral response to female immorality provides a warning against women adopting male vices along with equality. Elodia is described as “magnetic yet faulty” (147), her wit, charm, intelligence and power are seen as valueless without any moral discrimination behind them, yet as is repeatedly demonstrated, she only fails in the narrator’s eyes because he insists on judging her against a separate moral standards for women. Elodia emerges with integrity despite her flaws and offers an alternative to the Caskian dream. She accepts her own “tastes, faculties, passions and propensities” (54) and does not have any desire to imitate the Caskians. She accuses them of being “machine-like” (74) because their lives are so well-ordered, and even the narrator admits that they lack imagination and great emotions (123). Caskia may be an aspirational utopia for a thousand years in the future, but the arguments for female equality, whatever their consequences, resonate as being directly applicable to the women of Jones and Merchant’s time.

3.4 Conclusion

Eugenic elements in late-nineteenth-century feminist utopian fiction show the growing importance to women of their responsibility for improving the health, fitness and morality of the human race. The presence of eugenics acts as a signifier for concerns about sexual activity, marriage and fertility, as well as a

more general interest in opportunities for women to re-imagine their role in a safer new world directed by human ingenuity not nature. In *New Amazonia*, eugenics is part of the programme of social improvements offered by an all-female government, on a par with the eradication of disease and controlling the weather. However, although Corbett has a strong interest in science, she does not see scientific changes to reproduction as being desirable or necessary for promoting the equality of women. Instead she relies on a caste of celibate women without child-bearing responsibilities to provide leadership in her imagined society. The all-women government is justified by a discourse of female moral superiority based on women's biological role as mothers, and the maternal instinct, even though the state, which is meant to be a mother to the people, is run by women who have never been mothers, and concentrates on regulation rather than nurturing. Evolution and sexual selection are of little importance in *New Amazonia*, where the social advances brought about by women getting the vote are seen as sufficient for reforming society. In *Mizora,* on the other hand, scientific changes to the process of reproduction, and, more importantly, the elimination of all the men, is a precondition to forming a separatist utopia. Eugenic selection is seen as way of elevating the women to a high level of moral purity and the mother/ daughter relationship is celebrated as the strongest social bond. However, the separatism of *Mizora*, based on racial cleansing and the destruction of men raises serious questions about the function of the feminist utopia and its reinforcement of sexual stereotypes and gender and racial essentialism. *Unveiling a Parallel* offers strong arguments against any division of male and female characteristics into separate categories and shows that equality for women is possible, at least for the upper-class women with access to childcare. Nonetheless, the moral questions raised by opening up these opportunities to women remain unresolved, and disquiet over sexuality leads to imagining a world where men and women have evolved beyond the need for sex. Eugenics in the form of the conscious cultivation of the best qualities of the species is seen as the solution to the problem of unregulated sexual desire and the achievement of spiritual progress. Increasing knowledge about contraception enabled Jane Hume Clapperton to allude to the use of birth control in *Margaret Dunmore* and talk about new forms of relationships between men and women without requiring complete celibacy or

changes to reproductive methods, though her hopes for the future evolution of humanity were also based on the adoption of a form of eugenics.

Lack of precise information about the way inheritance worked made it possible to annex biological and scientific ideas to invent alternative means of reproduction that worked without requiring men, sex or childbirth. The drive to escape from sexual activity is present in both *Mizora* and *Unveiling a Parallel,* while *New Amazonia* and *Margaret Dunmore* both foreground the importance of choice over when and if women are required to have children. There is evidence here of a tension between women's acceptance of the scientific construction of their nature as being more sympathetic, altruistic and intuitive than men, and therefore more moral, through their role as mothers, and the strong desire demonstrated within utopian fiction to escape from the biological necessities of this role. I suggest that this disconnect shows that the alliance between evolutionary science and feminist activism was an alliance of convenience designed to allow women their own sphere of influence prior to full inclusion in the social citizenship not yet available to them through suffrage or legal equality. The separatism of *New Amazonia* and *Mizora* can be seen as being about affirming a female identity which, while in some ways as essentialist as male representations of women, offered a sense of empowerment and an opportunity to work out ideas for the kind of world in which women would like to live. Issues around sex, celibacy and motherhood would continue to feed into the social debates on birth control, eugenics and population levels well into the twentieth century, and women writers of utopian fiction would continue to look at ways they could use science to control the forces of nature to make the world a safer place for themselves and their children. In the next chapter I investigate Charlotte Perkins Gilman's *Herland* and revisit questions of separatism, eugenics and biological essentialism in the light of Gilman's use of feminist separatism as a tool for reimagining women's identity and role in the evolutionary progress of the human race.

4 Making Better People: Charlotte Perkins Gilman and Social Evolution

In the previous chapter I explored how late-nineteenth-century writers of feminist utopian fiction were able to appropriate scientific developments and evolutionary theory to support their arguments for women's suffrage and equality. In this chapter I focus on one particular writer, Charlotte Perkins Gilman, who made conscious use of evolutionary theory to argue that women's subordination to men was a barrier to human evolution. Gilman saw social and economic relations as processes subject to the same natural laws as biological evolution and sought to ground her theoretical and fictional writings in scientific principles. She was also influenced by the utopian socialism of Edward Bellamy's Nationalist Movement, where she began her early career as a writer and public speaker. Her interest in utopianism resulted in her writing three utopian novels *Moving the Mountain* (1911), *Herland* (1915) and *With Her in Ourland* (1916), as well as incorporating utopian ideas into her other novels. However, Gilman's most successful work was *Women and Economics: A Study of the Economic Relation Between Men and Women as a Factor in Social Evolution* (1898) where she first argued that evolutionary progress and the development of the human race had been severely hampered by the subjection of women to men. Her subsequent works continued to develop this theme, looking at practical measures for improving the position of women, and emphasising women's responsibility for improvement of the species through education and eugenic marriages. *Herland*, Gilman's most famous work of feminist utopian fiction, addresses the same issues in fictional form through portraying an all-female society where women evolved in isolation from men, reproducing through a parthenogenetic process which facilitates continuous improvements of the race from one generation to the next.

However, the eugenic measures and lack of racial diversity within *Herland* raise some of the same issues of white ethnocentrism as Lane's *Mizora*. One of the chief difficulties in writing about Gilman is negotiating between the progressive and utopian nature of her feminism and the racism and ethnocentrism inherent in much of her writing. Critical reception of Gilman has swung from early uncritical adulation to some extensive and personal attacks which can make it difficult to assess Gilman's work dispassionately and particularly hard to discuss her work in relation to eugenics which is a far more

difficult subject in the twenty-first century than it was in Gilman's era. Whilst acknowledging the racists elements of Gilman's work, my focus will be on exploring Gilman's interpretation of race in relation to evolutionary theory and its contribution to her argument for changing the economic and social role of women.

I begin the chapter by demonstrating the links between Gilman's early life and fiction, and her development as a social theorist capable of producing a fully formed analysis of gender relationships and female oppression in *Women and Economics*. I illustrate Gilman's use of evolutionary ideas through analysis of the feminist argument put forward in *Women and Economics* and examine what was distinctive about Gilman's approach to feminism, Darwinism and evolution. I then look at the justifiable criticism of Gilman's views on race, and show, through examination of Gilman's utopian fiction, to what extent her understanding of evolution allowed her to adopt a non-essentialist stance towards race, despite personal prejudice and nativist concerns about immigration. I also assess Gilman's approach to eugenics and consider whether Gilman's eugenics has been misinterpreted in the light of current questioning of her racism and a failure to distinguish between Gilman's utopian fiction and her later articles on race and birth control. Instead, I suggest that Gilman offered only limited support for eugenic measures in her utopian fiction, as a minor component in her goal of conscious improvement of the human race through education and the eradication of congenital diseases. Finally, I assess the implications of eugenics and race on Gilman's overall vision of social evolution.

4.1 Tearing Off the Top Pattern: the Road to Reform Darwinism

Gilman's awareness that the gender relations of her time were historically determined is already apparent in her early works of short fiction. In "An Extinct Angel" (1891), she adopts an evolutionary perspective to comment on society's expectations of women's role, by discussing the Victorian "angel in the house" as an extinct biological species. This awareness that women's position was socially constructed is also true of Gilman's most famous short story, "The Yellow Wallpaper" (1890) which contains a critique of men's power over women. The story is often read as a semi-autobiographical account of Gilman's post-natal depression and her reaction to the rest cure prescribed by

the neurologist S. Weir Mitchell, a reading encouraged by Gilman herself in the short article “Why I Wrote the Yellow Wallpaper” (1913). However, the text also supports a number of different readings, and has had a lively critical history since it was republished in 1973. Initial feminist interpretations of the work in the 1970s and early 1980s were superseded by a more critical interrogation of the ideology within the text, leading to readings which highlighted submerged racist, colonialist and queer content.[69] It is also possible to carry out an evolutionary reading which contains elements of the analysis which Gilman would develop further in *Women and Economics*. As such, the yellow wallpaper of the title, which is described as having a bad smell that permeates the whole house, can be interpreted as the masculine oriented (or as Gilman later calls it “androcentric”) environment which systematically oppresses women, while the woman the narrator sees within the wallpaper, shaking the bars and trying to climb through, is an allegory of women’s need for liberation from the repressive environment that is hindering their evolution. The narrator can also be read not as an individual woman going mad, but as a fictionalisation of the oppression experienced by many women and the arguments men use to deny the validity of women’s experience. Alternatively, building on the idea that “The Yellow Wallpaper” is semi-autobiographical, it could be argued that the story recounts the politicisation of Gilman. At first the narrator simply dislikes the wallpaper, then she starts to see recurring patterns in it, and eventually realises that these maddening and inexplicable patterns are the cultural forms that imprison women. The narrator’s obsession with tearing off the top pattern of the wallpaper can then be construed not as a sign of madness, but as a statement of Gilman’s determination to work against the androcentric culture that is restricting the development of women.

The tensions of Gilman’s first marriage to artist Walter Stetson, exacerbated by the birth of her daughter Kate in 1885, undoubtedly inform the psychological background to “The Yellow Wallpaper” and Gilman’s ongoing interest in women’s roles within marriage. However, her interests in evolution and feminism predated her marriage. Gilman’s estranged father, Frederick Perkins, provided his seventeen-year-old daughter with a reading programme

[69]See for example Susan S. Lanser "Feminist Criticism, ‘the Yellow Wallpaper’, and the Politics of Color in America", Denise Knight "Charlotte Perkins Gilman and the Shadow of Racism"; Samaine J. Lockwood “Charlotte Perkins Gilman’s Colonial Revival"; and Jonathan Crewe "Queering the Yellow Wallpaper? Charlotte Perkins Gilman and the Politics of Form".

that included anthropological texts informed by evolutionary theory (*Living* 36), while visits to her aunts Isabella Beecher Hooker and Harriet Beecher Stowe exposed her to suffragist ideas. Gilman's engagement with key evolutionary texts adds a layer of sophistication to her analysis of women's role in society which takes it beyond the autobiographical. Judith A. Allen, in her thorough and illuminating account of Gilman's career as a public intellectual, places the evolutionary framework at the heart of Gilman's feminism, stating that "To understand Gilman's feminism requires analysis of reform Darwinism, the approach she sought to carry her analysis" (73-74). Indeed, *Women and Economics* references T. H. Huxley, Lester Ward and Grant Allen, while Gilman herself acknowledged the influence of Geddes and Thomson's *Evolution of Sex* (1889) and Lester Ward's "Our Better Halves" (1888), an article in which he argued that women were more important for evolution than men (Hill 266). This intellectual background is important for situating Gilman's approach to feminism, and the political reformist engagement which informs her work.

As can be seen in the Judith Allen quotation above, Gilman is often referred to as a reform Darwinist, a term generally applied in America to progressive evolutionary thinkers who, unlike social Darwinists, opposed *laissez-faire* capitalism and advocated intervention to promote the evolution of society.[70] However, few critics acknowledge that reform Darwinism was a label applied retrospectively, rather than a movement that Gilman could have seen herself as part of during her lifetime. The earliest uses of the term can be traced back to the 1950s, where reform Darwinism was used as a means of differentiating the more progressive evolutionists from the Social Darwinists analysed by Richard Hofstadter in his seminal attack on American capitalism *Social Darwinism in American Thought, 1860–1915* (1944).[71] Reform Darwinists are often also described as neo-Lamarckians, that is to say latter-day advocates

[70] The OED defines Social Darwinism as "the theory that societies, classes, and races are subject to and a product of Darwinian laws of natural selection" ("social Darwinism n. at social, adj. and n. Special Uses 2." *OED Online*), but the term was often used more pejoratively as a label for economists suspected of being in favour of unrestricted competition. Robert C. Bannister in *Social Darwinism: Science and Myth in Anglo-American Social Thought* (1979) argues that Social Darwinism itself was actually a myth fabricated by reformers to discredit laissez faire capitalism by depicting Social Darwinists as ruthless supporters of "survival of the fittest".

[71] Pfeifer attributes the first use of the term "reform Darwinism" to Eric Goldman's *Rendez Vous with Destiny* (1952) (397)

of Lamarck's theory that acquired characteristics are heritable.[72] Neo-Lamarckians were an identifiable group formed to defend the concept of the heritability of acquired characteristics in response to Weismann's "germ-plasm" theory, which posited an enclosed system for the transmission of hereditary information from one generation to the next, without any influence from the habits or environment of the parents.[73] However, there was sufficient commonality between Darwinism and Lamarckism to explain the slippage in terminology that has led some subsequent critics to use reform Darwinism and neo-Lamarckism almost interchangeably to denote various positions within the spectrum of evolutionary thought. What reform Darwinism, neo-Lamarckism and Social Darwinism have in common is that, unlike Darwin himself, their adherents applied the biological process of evolution to society, albeit to quite different ends.

Gilman was well versed in the debates of her day over the application of evolutionary science to theories of social development. Maureen Egan comments on Gilman's debts to a range of thinkers from all spectrums of the Darwinism debate, including John Fiske, who used Darwinism and evolution to argue for the inevitability of social progress in *The Outlines of Cosmic Philosophy* (1874); Henry Drummond, an evangelist interested in spiritual evolution; and the economist Henry George, who argued against Malthus in *Progress and Poverty* (1879) (M. Egan 107). Gilman's involvement with the Nationalist movement that grew up in the wake of Bellamy's *Looking Backward*, both as a writer of pro-Nationalist poems and as a speaker on Nationalist themes, also connected her to a progressive social movement associated with evolution.[74] However, it was Gilman's strong endorsement of the ideas of Lester Ward that has earned her the label of reform Darwinism. Ward was a very visible opponent of Spencer and *laissez-faire* economics, arguing that social interactions led to a purposive evolution which could allow humans to intentionally transform their environment in a way that was impossible for

[72] The term "neo-Lamarckism" was coined by American scientist, Alpheus Packard in 1885, and it was in America that the theory found its greatest influence during the late nineteenth century (Bowler 59, 118).
[73] Richardson argues that Weismann himself was aware of the complexity of organisms, and did not discount the role of the environment, but that his theory was developed at a time when the rapid professionalization of science was leading to reductive thinking ("Darwin and Reductionism" 8).
[74] For more information on Gilman's development as a poet and speaker for the Nationalist movement see Scharnhorst 194-6.

animals. As Egan argues, Ward made a distinction between physical evolution, based on natural selection, and a more purposive mental evolution available to humans. He was also a committed Lamarckian, seeing the inheritance of acquired characteristics through education as key to social evolution and the ability of humans to progress through their own efforts (Stocking 253).

Gilman accepted natural selection as the chief mechanism for the evolution of the individual and the race, but like Darwin himself continued to assign a large role to use and habit.[75] Gilman's novel *What Diantha Did* (first published in serial form in *The Forerunner* in 1909-10) contains an account of a fictional experiment with guinea pigs to prove the transmissibility of acquired characteristics. One pair of guinea pigs was brought up in conditions of "ordinary guinea-pig bliss", while another was "subjected to a course of discipline" involving exercise wheels and a jumping course. After five years of putting many generations of the descendants of the second pair through this routine, the experiment showed that the trained guinea pigs had become "nimble, swift, as different from the first as the razor-backed pig of the forest from the fatted porkers in the sty" (245-6). This fictional experiment gives an idea of Gilman's investment in a version of evolution that placed the emphasis on progress through discipline and work, and therefore a moral process which would lead infallibly to social improvement and establish a scientific basis for deriving ethics.[76]

For Gilman, social evolution was an extension of biological evolution. She did not recognise a difference between animal evolution and social evolution, but believed them to be part of the same process:

> The evolution of organic life goes on in geometric progression: cells combine, and form organs; organs combine, and form organisms; organisms combine, and form organizations. Society is an organization. Society is the fourth power of the cell. It is composed of individual animals of genus homo, living in organic relation. The course of social evolution is the gradual establishment of organic relation between individuals ... (*Women* 51)

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[75] For further discussion of Gilman's interested in acquired characteristics see Mamigonian (63); Hausman (498-500); Lloyd (98); M. Egan (106).

[76] Malina Mamigonian sees Gilman as turning evolution into a religion, arguing that Gilman "transform[ed] the laws of nature into religious doctrine, without attribution or apology" (62).

Gilman saw social evolution as a move away from individualism to a more complex, and therefore more efficient, form of organisation. It involved “increasing interdependence” and much less reliance on “the once valuable process of individual struggle for success” (52). Gilman compared individuals attempting personal gain at the expense of the general social interest to the morbid action of a diseased organ. For Gilman this was not simply an analogy, but a transposition of biological processes from the body to society. Historian Lois Magner argues that Gilman "even claimed that the social organism did not exist merely as a useful analogy or illustration, but as a literal biological fact" (122).

The importance of social evolution to Gilman can be seen in the subtitle to *Women and Economics*: *A Study of the Economic Relation between Men and Women as a Factor in Social Evolution*. However, social evolution is also problematic for Gilman. She can only argue that women’s subjection to men is anti-evolutionary if she accepts that “social evolution” is capable of taking a wrong turning, or if she can find another cause for women’s “unnatural” subjection to men, which does not challenge the validity of social evolution. She tries to put the responsibility onto “false conditions” which include “survival of rudimentary instincts”, “disproportionate pressure of individual interests” and most of all a distorted sexuo-economic relation between men and women (52-3). However, this analysis leads Gilman from a view of the inevitability of social progress into a more dystopian outlook, which I explore further in the next section.

4.2 Women and Economics: Gilman’s Dystopian Narrative

In *Women and Economics* Gilman takes a stance that is the reverse of utopian. Where Corbett in *New Amazonia* and Lane in *Mizora* used the utopian form to imagine how society might work if it were ruled by women, Gilman employs evolutionary rhetoric to demonstrate that the status quo of her own society and culture is systematically dystopian in relation to women. Corbett’s and Lane’s utopian perspectives highlight the abuses of their own time through demonstrating the cultural embeddedness of their own societal norms. Gilman instead contrasts human social organisation with the natural world and builds up a narrative of thwarted evolutionary progress. *Women and Economics* begins

by stating its thesis of evolutionary decline in an introductory poem, or “Proem”, as Gilman calls it. In this poem, Gilman talks of the primordial equality of man and woman, as “comrades dear and daring”, living wild and free in the primal forests. However, in Gilman’s origin myth, it is man who finds the Tree of Knowledge and chooses to use his strength to “conquer Pleasure” and take control of women to be his exclusive property. This act leads to disease, crime and loneliness. In the poem, redemption for humanity comes from Nature (apparently interchangeable with God) which is prompting men and women to resume their former equality:

> Nature hath reclaimed thee, forgiving dispossession!
> God hath not forgotten, though man doth still forget!
> The woman-soul is rising, in despite of thy transgression –
> Loose her now, and trust her! She will love thee yet! (vii)

Gilman saw poetry and fiction as an important way of influencing readers. Her earliest published work was a poem about evolution, and Lester Ward continued to value Gilman more as a poet than a social thinker throughout their correspondence (Allen 92). However, the narrative of paradise lost and then regained that Gilman manages to depict in a few verses requires fifteen chapters to argue in prose, and then results in a much less certain ending: “When the mother of the race is free, we shall have a better world, by the easy right of birth and by the calm, slow, friendly forces of social evolution” (167). This conclusion is not so much about the triumph of the “woman-soul” as gentle persuasion that the changing role of women is not a threat to social order. The emphasis is on women as mothers, not as socially disruptive suffragists, and on the idea that change through social evolution would be “easy”, “calm”, “slow” and “friendly”.

Gilman’s central argument is that what she calls “the sexuo-economic relationship” between men and women is unnatural because “In no other animal species is the female economically dependent on the male. In no other animal species is the sex-relation for sale” (48). Therefore, establishing what is natural and what is not is extremely important to her argument. To do this, Gilman makes extensive references to the natural world and compares human social conventions such as selection of partners and child-rearing to those of other animals in order to establish which ones can be seen as natural and which ones are socially constructed. For example, monogamy is described as “a natural

development, inevitable in the course of social progress" because it is found in birds and mammals (13). This trans-species perspective sweeps aside social conventions and allows Gilman to label various consequences of the distorted economic relationship between men and women as unnatural and disadvantageous to social progress. She argues that the necessity of women selling themselves to men leads to economic functions being mixed with sex functions, putting "the immense force of sex-competition into the field of social economics" (56). The result, she claims, is increased individualism, and men focussing on economic gain rather than achievements which could benefit society.

Gilman sees "excessive sex-distinction" as the root cause of the problems of the human race. Her argument is that in order to survive under the economic circumstances prevalent in human society, women needed to make themselves as sexually attractive to men as possible through over-development of secondary sexual characteristics relevant to sexual selection. Excessive sex distinction led to women being "over-sexed", by which Gilman meant that they were only developing the physical and behavioural characteristics specific to their gender. Men could continue to contribute to the development of the human race while women were confined to reproductive functions and keeping house. Gilman again uses comparisons to other species to argue that "Woman's femininity ... is more apparent in proportion to her humanity than the femininity of other animals in proportion to their caninity or felinity or equinity" (23). Therefore, the female is comparatively much smaller and weaker than the male in humans than within other species, to the detriment of their children and society as a whole. This anomaly, Gilman argues, results from the perversion of the process of sexual selection. Although Darwin originally saw sexual selection as males competing to take possession of females, he did also recognise a separate process of female aesthetic choice operating outside the parameters of natural selection (Richardson *Love* 55). Bellamy too built on the active role of women in selection and made the women of the future Boston of *Looking Backward* responsible for selecting the right men for the advancement of the race. But, as Gilman points out, women are not given any role in sexual selection, and worse still their economic dependence on men short-circuits any form of natural selection. Men, therefore, have become the economic environment for women, so women have evolved only the qualities which will

help them to succeed in this environment. Men have tended to select weak, delicate women, or women who meet their criteria of sexual attractiveness, while women have been forced to marry for financial advantage.

Perversion of the process of sexual selection was only part of the problem of women's subjection to men. Women were also ill-educated for the important role of bringing up children. Gilman saw two purposes to motherhood – reproducing and improving the race (89). Only women could carry out reproduction, but not all mothers were suited to bringing up children, or educating them in their early years. Gilman believed that too much reliance was placed on the mothering instinct, arguing that it would be hard for maternal instinct to "discriminate between Marrow's Food and Bridge's Food, Hayrick's Food and Pestle's Food, Pennywhistle's Sterilized Milk, and all the other infants' foods which are prepared and put upon the market by – men!" (97). Even though Gilman accepted the importance of maternal instinct in animals of lower intelligence, she felt that modern society and science offered better methods for bringing up children. Gilman's view on instincts was that they were only right when the conditions in which they were developed were still present, as what was natural at one stage of evolution was not necessarily natural at another (103-04). The high infant mortality rate was also no advertisement for the benefits of segregating women from potential economic productivity to concentrate on child-bearing. Gilman argued instead that working women were just as capable of bearing children as the cloistered, specialised mothers of her social peers. However, Gilman retained enough faith in the maternal instinct to conclude that most women would "naturally choose those professions which are compatible with motherhood" (121). She backed up her case for working mothers by making recommendations for kindergartens, kitchen-less houses and professional cleaning services which would make the economic productivity of women a realistic option without disadvantage to their children.

The most difficult issue Gilman faced in arguing that women's sexuo-economic situation was unnatural was accounting for women's long subordination to men. She drew on Lester Ward's theory of women being the primary agent of human development, proposed in "Our Better Halves", to argue that race preservation was initially a female function and men were "merely a temporary agent in reproduction and of no further use" (64). Men only developed the capacity to take on their share of evolutionary work through

encroaching on women's freedom and compelling women to serve their needs.[77] Gilman's argument was that if women had remained free, and maintained their superiority to men, men would never have evolved beyond being hunters and fighters, whereas through taking on the responsibility for women and their children, men became feminised into "a sort of man-mother" (63), and therefore more fully human. Gilman has to work hard to make women's long history of subordination to men sound positive. She asserts that by combining masculine energy with the constructive element of the female, men were able to push forward expansion and progress. Women, therefore, could be seen as Svengali-like agents behind the progress of mankind: "In her subordinate position, under every disadvantage, through the very walls of her prison, the constructive force of woman has made man its instrument, and worked for the upbuilding of the world" (66). This proposition is the least convincing part of Gilman's argument as it is relies on an essentialist faith in women as agents of change. Also, to make this idea work, the very conditions that Gilman has argued against as impeding evolution, such as "woman's abnormal development of sex" (66) have to be considered as beneficial after all. Recognising the difficulties with this argument, Gilman consigns these benefits to the past, and declares that woman's condition of dependence is drawing to a close because "its racial usefulness is wearing out" (68). The women's movement itself is evidence that times are changing, she argues. Women are becoming more equal, increasing in size and strength and more of them are part of the workforce (74-76). These changes are the result of a form of progressive social evolution which Gilman variously describes as "the spirit of the times", "common consciousness" and "social consciousness".

Women and Economics is remarkable, as Brian Lloyd says, for "its sustained effort to restore science as the nineteenth century understood it to a position of prominence in the women's movement of the twentieth" (98). However, Gilman's fluency with scientific theories and her desire to ground social science in scientific certainties cannot disguise the fact that she saw evolution very differently from Darwin. Her neo-Lamarckian framework allowed her to conceptualise evolution as a teleological process that would ensure the higher development of humankind, as opposed to natural selection which,

[77]A process which Gail Bederman describes as "the birth of the primitive rapist" (141).

without the purposive intervention represented by the inheritance of acquired characteristics offered no such certainty. However, by arguing that social evolution was a natural process following fixed laws, Gilman left no active role for women to play in bringing about reform, or as Lloyd put it, no "role for conscious agency in a deterministic analysis" (94), and so, Gilman was forced to interpret women's demands for change as a sign that social evolution was occurring, rather than the cause of it.[78] Although Gilman contested the culturally determined version of womanhood accepted by her contemporaries, and was committed to redefining a range of so-called masculine or feminine traits as human, she failed to disassociate herself totally from an essentialist view of women. Biologically she limited what was intrinsically female to those traits connected to sexual reproduction, but her readings in evolutionary science also led her to equate women with moral superiority and altruism. Although her view of women's nature was nuanced by the understanding that evolution meant that no characteristics were fixed, she saw men as evolving towards the qualities already possessed by women, but not vice versa. The economic subjection of women which had forced men to evolve to become more like women had no counterpart in women. Women were, she remarked, in a "position of arrested development", but their restoration to economic independence would result in "clarifying and harmonizing the human soul" through changes of habit, such as losing "the vices of a slave" (Gilman 162-3), rather than them evolving to become more like men. Gilman coveted masculine freedom and agency, but not masculine traits, such as combativeness and competitiveness, which she saw as primitive residues of earlier social conditions.

The most distinctive element in Gilman's use of evolutionary science was her determination to apply it to society in support of feminist ideas, although she was not the first feminist writer to do so. As already discussed, Antoinette Brown Blackwell and Eliza Burt Gamble both disputed some of Darwin's conclusions about the role of women in evolution, but they focussed on contesting the biological arguments for the inferiority of women rather than detailing the long-term implications of such biological arguments for society. Penelope Deutscher, in an article comparing Blackwell, Gamble and Gilman,

[78] Ann Palmeri notes: "Gilman's problem in particular was to show why the economic dependence of women upon men was outmoded and how the movement out of this stage might occur" (112).

points out that: “For Gamble, the savage represents an ideal state of humanity in which altruism and concern for the social group are still primary ... and the female is still the progressive principle” (49). Gilman has none of Gamble’s nostalgia for the past. For her, the savage and the primitive represent earlier stages of evolution, symbolic of women’s under-evolved condition and the regressive forces which threaten women’s growing independence. She felt that women needed to escape from the passive conditions of their past reliance on masculine economic power and be given the opportunity to work for a better future. Ann Palmeri argues that “The evolutionary thesis that women are the first sex was, for Gilman, primarily a moral, not a factual assertion” (114). Although Palmeri’s justification for this statement is based on the importance of motherhood in evolutionary development, it also highlights the fact that the emphasis of Gilman’s work was on examining the consequences of women’s current position rather than scientifically proving the case for equality. It could be argued that Gilman was the first feminist to engage with the emerging field of sociology and give a unique feminist perspective to the social evolutionary theories being discussed. Palmeri suggests that Gilman’s main contribution to extending Lester Ward’s theories “was in her analysis of the economic value of women” (106).

Feminist writers in Britain also used evolutionary arguments to support the case for women’s rights. Richardson argues that Mona Caird questioned biological essentialism in her novels, developing an anti-essentialist argument from Darwin’s emphasis on variability and evolutionary change, and was able to build on his observations to support a pro-feminist argument (*Love* 182-3). In “A Defence of the So-Called ‘Wild Woman’”, published in the *Nineteenth Century* in 1892, Caird called for an increase in the “distinctly human qualities” in women, as opposed to “those merely instinctive or maternal” (51). She rejected the idea of women’s social position being determined by nature, seeing their condition as one forced on them by men and capable of amelioration through a better balance between childbirth and other work. Unlike Gilman, she did not consider motherhood as women’s great work for racial progress and argued against the necessity of generations of adults sacrificing their chance of personal development in favour of their children, or, as she put it, “this perpetual renunciation for a race that never comes” (56). Gilman on the other hand saw

individualism as a lower stage of evolution and made it clear that social evolution involved co-operation and social cohesion.

Olive Schreiner in *Woman and Labour*, written over a decade later, in 1911, used very similar arguments to Gilman's to demand for women a share of "honoured and socially useful human toil" (68). In Schreiner's analysis, though, the "sex-parasitism" of women was a result of falling birth rates and increasing mechanisation which had robbed many women of their traditional roles as mothers and managers of productive households (107). Schreiner's arguments are interestingly similar to Gilman's but instead of seeing civilisation and progress as forces which would inevitably improve women's position, Schreiner feared that the historical importance of women's role was being eroded by modern conditions, and that women risked becoming "mere instruments of sexual indulgence", earning their living as prostitutes, mistresses or kept wives (116).

Gilman makes a strong case for women having a wider role outside the domestic arena, and yet, as Hausman argues, just like other early feminists, Gilman could not avoid seeing motherhood as one of the most important roles for women (506). *Women and Economics* simultaneously emphasises women's importance in the process of ensuring that children grow up to be better than their parents, and argues against the necessity of mothers taking sole responsibility for children in their early years. Freeing women from childcare and housework was important for Gilman's vision of women moving on to do "human" work that was not pre-determined by their gender, for example starting successful businesses or designing houses as in *What Diantha Did*. One way out of this impasse was to place greater emphasis on women's role in selecting the right husband. Such a choice concerned not only what Gilman refers to as "good physique" but also character. For Gilman character and morality were as much capable of being inherited as physical characteristics, which meant that the selection of depraved fathers would lead to depraved sons. However, women also had a duty to raise their sons to be moral and of good character and break the cycle of vice. Here Gilman seems conflicted between wanting to assert the mother's importance in this process and denying that early education should necessarily be the sole responsibility of women. She squares the circle by arguing that only economically independent women can effectively educate

their children and provide them with “the necessary knowledge of the world so indispensable to every human being” (93).

Towards the end of *Women and Economics* Gilman blames “man’s dual nature”, that is, the conflicting demands of good and evil in human beings, on women’s evolutionarily arrested condition. She argues that the generations of marriage between civilised men and primitive women have “bred a race of psychic hybrids” (163). In this example, women are no longer the force for evolutionary advance that she saw them as earlier, but simply slaves to men’s sexual passion. For Gilman, these contradictions all revolved around sex. Women were morally superior to men under the prevailing social circumstances as men had too much sexual energy, bred by the sexual subservience of women; however men, unlike women, had a life outside their sexual role, and so they had an opportunity to develop other social qualities necessary for progress. Either way, the sexual relation between men and women was at the root of the problem, but in one version, women could save the world by practising right selection; in the other, men had to end their misalliance with sexually subservient women. In *Women and Economics* Gilman draws on the discourse of miscegenation to strengthen her case for women’s release from sexuo-economic dependency by referring to “the innate perversion of character resultant from the moral miscegenation of two so diverse souls” (165). Such language is visceral in its strength. Gilman’s hopes for the future of social evolution feel tame by comparison, leaving an impression of humanity trapped in a dystopia at the mercy of a hypothetical advance in masculine morality or feminine independence.

Nevertheless, *Women and Economics* was an immensely successful book. It was described by the *Nation* as “the most significant utterance on the subject of women since Mill's *The Subjection of Women*," and made Gilman’s reputation as a public intellectual and social critic (Kimmel and Aronson xx). *Women and Economics* was judged by Gilman herself as her most important work (Allen 8). Gilman’s understanding of the sexual nature of women’s subjection makes her analysis original and far-reaching and her suggestions for changes to the home and childcare offered practical steps for improvements. Yet the major advances that Gilman hoped for from social evolution were not immediately forthcoming, and in the succeeding years Gilman continued to

revisit her argument, both in fiction and non-fiction, and particularly within utopian fiction, which I discuss in the next section.

4.3 Gilman's Utopian Lands

In 1909, Gilman started her own magazine, *The Forerunner*, to publish some of her work that was being rejected by the mainstream publishers. Possibly her ideas were too radical for the editors, as Allen suggests (281). Gilman herself wrote that she set up *The Forerunner* because "Social philosophy, however ingeniously presented does not command wide popular interest. I wrote more and sold less" (*Living* 303-4). *The Forerunner*, which she published for seven years, was written entirely by Gilman, totalling twenty-eight to thirty-two pages a month. It contained a mixture of fiction, non-fiction and reviews. In the course of the seven-year run Gilman serialised seven novels, including three speculative works of utopian fiction *Moving the Mountain*, *Herland* and *With her in Ourland*, as well as the utopian-oriented *What Diantha Did* and *The Crux* which illustrated ideas for social change. Although *Moving the Mountain* appeared in book form, *Herland* was only ever published as a serial until its republication in the 1970s as a lost feminist classic. Larry Ceplair estimates that *The Forerunner*, which was mainly sold to subscribers or purchased from political organisations, would have been read by at most 5,000 to 7,000 people (188). The strict publishing schedule and the serial nature of the work undoubtedly had an impact on the fiction, both in its tone, which is sometimes uneven, and the content, which shows signs of Gilman writing to answer questions raised by her previous instalments. However, such a modus operandi accorded with Gilman's didactic intentions for her fiction. Kessler notes that "her purpose in fiction was not so much aesthetic or belletristic ... but rather rhetorical, the goal we have come to expect of nonfiction writing" and further clarifies that Gilman believed that fiction could bring about social change (42-3). Therefore, it is not surprising that Gilman included fiction in *The Forerunner*, or that much of it was utopian in nature since utopian fiction was the perfect form for presenting alternative possibilities and dramatising the social changes she hoped to promote.

Pfaelzer talks of the "unparalleled literary expression of social anxiety and political hope" of the utopian fiction of the decade between 1886 and 1896

during which over one hundred works of utopian fiction appeared in the United States" (3). However, by the early twentieth century, the post-Bellamy boom in utopian fiction had already passed. Gilman mentions four works of Utopian fiction in the preface to the book publication of *Moving the Mountain* (in 1911), but only one of them, H.G. Wells's *In the Days of the Comet* (1906), was comparatively recent. Moreover, Wells's novel contained very little utopian world-building, being mainly about the events leading up to the passing of the eponymous comet, and the resultant changes to human nature. Wells's main social innovation was to put forward a justification for polyamorous free love. Gilman was unimpressed by the book, and criticised Wells for finding it necessary to introduce "some mysterious outside force". For Gilman it was important that her "baby utopia" offered a realisable projection of what could be achieved within thirty years. Even her narrative device for introducing an early-twentieth-century man to the utopian world was more realistic than most, involving no supernatural agency, merely a man who had lost his memory and lived with Tibetan peasants for thirty years. This novel offered Gilman the opportunity to show in practice the results of the changes she had written about in her essays and non-fiction, as well as in stories such as *What Diantha Did*. As discussed further below, Gilman introduces a range of social improvements including child gardens, communal kitchens and women working outside the home, and engages in a dialectic process to win over her resistant male narrator to the benefits of the new social set-up.

However, despite successfully demonstrating the benefit of empowering women as active members of society in *Moving the Mountain*, Gilman still felt the need to go back to utopianism in 1915 to write *Herland* and its sequel *With her in Ourland* in 1916. There were a number of reasons for Gilman choosing to revisit feminist utopianism. In *The Man-Made World; or Our Androcentric Culture* (1911), the one work of non-fiction from *The Forerunner* which was published in book-form, Gilman returns to the question of the long subjection of women to men, outlining the negative consequences of the "androcentric culture" which she holds responsible for the repeated failures of social evolution through the dominance of masculine values which have led to war, prostitution and poverty. The restatement of Gilman's evolutionary argument from *Women and Economics* in even more forthright terms suggests that she felt that the society portrayed in *Moving the Mountain*, or the small-scale examples of

women's successful business ventures in *What Diantha Did* and *The Crux*, did not go far enough in promoting social evolution. Increasing pro-suffrage activities in New York and the outbreak of the First World War in Europe also had a profound effect on Gilman. Since she associated war with masculinity, she saw the need for a changed relationship between men and women as ever more urgent. *Herland* also represents a retreat from the optimism of *Moving the Mountain*, where women can change the world in thirty years simply by "waking up" to their duties and responsibilities. *Herland* requires an isolated country and two thousand years of evolution away from men to produce a race of what Gilman calls "wonder women". This longer time period may acknowledge some of the issues facing neo-Lamarckian theories of evolution. Without the inheritance of acquired characteristics, substantial change to women's physical and psychological make-up would clearly take longer. Also, the longer time-span allows Gilman greater freedom to reverse the androcentric scenario of *Women and Economics* and *Man-Made World*, resolve the issue of women being evolutionarily retarded in relation to men and explore what a gynaecocentric world might really look like.

With Her in Ourland changes the parameters of utopia once again, since it is not so much a utopia as Gilman's opportunity to measure the world, and America in particular, against the utopian standards she has set up in *Herland*. The critic Thomas Peyser argues that by the early twentieth century the long tradition of American exceptionalism was beginning to give way to cosmopolitanism, or be reconfigured as a dream of industry-based "universal democratic expansion" (14-15). Gilman still represents America as the best hope for the world, but the narrative of *Ourland* is largely taken up by a critique of the problems of America. *Ourland* is the most problematic of Gilman's three utopian novels, and is the one that attracts the most criticism for its presentation of racist views within the text. However, one of the reasons for this increased level of criticism is that in *Ourland* Gilman takes an international perspective that forces her into a much greater awareness of racial issues and America's own shortcomings than in previous works. Racism is closely linked to eugenics in the critical reception of Gilman's work, and my next section will look at the role of race within Gilman's utopian fiction, as well as her later appraisal of questions of race, which complicates some of the criticism she has received in

relation to race. I will then go on to examine the relevance of eugenics to Gilman's plans for making better people.

4.4 Gilman and Race

No credible discussion of Gilman's fiction and social philosophy can take place without acknowledging the problem of racism within her work. Bederman asserts that Gilman's use of the term race meant the "white" race and that Gilman's feminist arguments were based on replacing male supremacy with white supremacy. Susan Lanser sees the yellow colour of "The Yellow Wallpaper" as a sign of anti-oriental racism in Gilman's work, while Denise Knight notes many examples of racism in Gilman's personal writing. Ann J. Lane, a major biographer of Gilman, sees "Gilman's racist, anti-semitic, and ethnocentric ideas" as "scar[ring] her theoretical work" (255). Dohra Ahmad, in line with Bederman, argues that Gilman's writing is inherently developmentalist, obsessed with ideas of racial purity and the desire to demonstrate the superiority of white women over black men. Alys Weinbaum is concerned about the uncritical acceptance of Gilman by earlier feminists and the damage that a false picture of Gilman might create within feminist criticism. Judith Allen, however, is critical of these approaches, arguing that the topic of race only represented a small proportion of Gilman's output, that contemporaries and general historians of Progressive Era racism did not see Gilman as racist, and that Gilman voiced strong criticism of contemporary racist practices such as anti-miscegenation laws and economic discrimination (335-7).

While Allen's argument that much discussion of Gilman's racism is inclined towards "presentism" and represents an un-nuanced view of the arguments that Gilman is making is persuasive, Gilman's world view was informed by a framework which sought to classify the characteristics and qualities of each race on a supposedly scientific basis. Her work presupposed a hierarchy of races and assumed that the white races of Northern Europe were at the top of this hierarchy. She was therefore a strong advocate of integrating African Americans into the dominant white American culture, believing that the only possible path to industrial progress and civilisation was through

assimilation.[79] However, I will argue that although Gilman's acceptance of the validity of racial hierarchies is problematic, she did not see other races as inherently inferior or incapable of change and development. I will also suggest that, paradoxically, it is just when Gilman begins to question the assumption that white Northern Europeans races represented the pinnacle of evolution and to take an active stand against racial discrimination that her writing on the topic becomes most susceptible to the charge of racism.

The critic Tzvetan Todorov makes a useful distinction between racism as behaviour, involving hatred or contempt towards individuals who are seen as different, and racism as an ideology (90-91). Allen points out that the term "racism" was not formally in use in Gilman's lifetime, and was initially defined in 1935 as "the ascription of inferior, negative characteristics judged innate, inherent, and inalterable, and thus which justified segregation, enslavement, or extermination" (Allen 302). Gilman demonstrates racism in the first sense of irrational dislike and prejudice in some of her private correspondence, for example when she wrote to her daughter Katharine in a 1922 letter that she had been forced to change berths because "To have sat in the sun opposite those coons and their baggage - & their lunch - the boy squirming about and making all manner of noises - would have used me up pretty badly" (qtd. in Lane, 337).[80] However, in her public writings Gilman strove to avoid race prejudice, writing in *Ourland*:

> I think your prejudice against the black is silly, wicked, and – hypocritical. You have no idea how ridiculous it looks, to an outsider, to hear your Southern enthusiasts raving about the horrors of 'miscegenation' and then to count the mulattos, quadroons, octoroons and all the successive shades by which the black race becomes white before their eyes.... (323)

Although this passage reveals Gilman's assimilationist stance in its emphasis on shades of blackness, it is also a clear statement of Gilman's belief that racial prejudice was morally unacceptable. Later in *Ourland*, Ellador contests racist stereotypes such as the "innate laziness of the negro race" and their supposed ineducability, praising the achievements of African Americans despite several generations of slavery (356-8). On the other hand, Gilman did believe that "the

[79] For further discussion of Gilman's assimilationism and its relationship with her feminist principles see Louise Newman (132-57).
[80] This passage is described by Knight as "one of the most flagrant examples of Gilman's racism..." (167).

human race is in different stages of development" and that not all people or races were fully developed enough to be ready for American democracy. When it came to the ideology of racism, Gilman tended to express her developmental hierarchies in terms of savage versus civilised, that is to say, stages of development rather than race or colour. While Gilman makes frequent use of the term "race" in *Women and Economics*, she was usually referring to the human race as a whole, as was the common practice at the time. Bederman, however, argues that "Gilman's knowledge of the discourse of civilization made her understand that to specify 'white' would be redundant" (135). While this is true, Gilman's main interest was in how the human race as a whole could progress and the factors, specifically gender-related, that might impede this progress. Gilman tends to use species and race interchangeably, suggesting she intended the term race to encompass all humans, rather than specifically her own caste of white Americans.

The work most frequently cited in relation to Gilman and racism is her seemingly well-intentioned but ultimately misguided article in the *American Journal of Sociology* entitled "A Suggestion on the Negro Problem" (1908). Here Gilman proposes enlisting African Americans "below a certain grade of citizenship" into a social army with the aim of improving their education, employability and social development. The army with its "music, banners and impressive ceremonies" and its programme of beneficial works evokes Bellamy's social armies of *Looking Backward*, but the inclusion of such elements as enforced enlistment and a heavy programme of manual work makes the suggestion sound uncomfortably like a paternalistic re-introduction of slavery.[81] Behind the suggestion is the explicit assumption that the "negro" is a "backward race". Gilman makes her position clear when she suggests that, on a sliding scale of one to ten, Race A (her own race, white Americans) has progressed to a ten in terms of social evolution, while Race B (black Americans, imported as slaves) are still only at four (79). Moreover, the presence of this

[81] Winwood Reade whose book *The Martyrdom of Man* Gilman cites approvingly in *Ourland* makes a similar suggestion: "[A] European Government ought perhaps to introduce compulsory labour among the barbarous races that acknowledge its sovereignty and occupy its land. Children are ruled and schooled by force, and it is not an empty metaphor to say that savages are children. If they were made to work, not for the benefit of others, but for their own, if the rewards of their labour were bestowed, not on their masters, but on themselves, the habit of work would become with them a second nature, as it is with us, and they would learn to require luxuries which industry only could obtain." (416).

"large body of aliens, of a race widely dissimilar and in many respects inferior" (78), as she puts it, risks retarding the social development of America as a whole. In this statement, we can see Gilman the instinctive racist reinforcing Gilman the social scientist, who believes in racial hierarchies and holds it self-evident that her own culture represents the vanguard of civilisation, making it possible for her to argue that "The African race with the advantage of contact with our more advanced stage of evolution, has made more progress in a few generations than any other race has ever done in the same time, except the Japanese" (80). For Gilman, African Americans may be inferior, but they are making good progress. As she explains in *Ourland*: "the human race is in different stages of development, and only some races – or some individuals in a given race – have reached the democratic stage" (323). In this respect, her argument is similar to that which she employed in relation to women: progress is being held back by the disempowerment and lack of citizenship of a section of the population. However, in contrast to her views on women, Gilman clearly sees the African American population as being a problem for America rather than an untapped resource for evolutionary advance. Also the subjection of women affects the whole human species, while the "negro problem" is specific to America, and in Gilman's eyes, a threat to American democracy and reputation in the outside world.

For Gilman, the proposed segregation in work camps of the 1908 article only goes part-way to a solution to this threat. In *Ourland* she comes up with a more chilling idea, genetic absorption into the white population: "As a mere matter of interbreeding, following the previous habits of the white men, it could be worked out mathematically – how long it would take to eliminate the negro, I mean" (358). This shift from paternalistic exclusion to assimilationism reflects concerns over immigration and American identity which led Gilman to question white supremacy and introduce a more racial element to her work. She no longer portrayed social evolution as a universal, inevitable process, but one which was relative, and under threat from forces outside America. Gilman's writing from the mid-1910s onwards begins to be far more concerned with America than the human race as a whole. In *Moving the Mountain* (1911) immigrants are welcome providing they do not object to submitting to "Compulsory Socialization" (55), a process which segregates the immigrants until they pass their citizenship exam. At that point, Gilman was still confident

about America's mission to lead the way in universal social improvement: "No Country on earth offers so much happiness to its people. Nowhere else – yet – is there as good opportunity to be helped up, to have real scientific care, real loving study and assistance!" (57). *Ourland*, by contrast, although written only five years later, offers a much less positive view of America and its relationship to other nations. The novel's structure of a journey from Europe to America, observed from the outsider perspective of the native Herlander, Ellador, allows Gilman to embark on a comparative sociological analysis of different civilisations. In doing so, she returns to her original model of civilisations developing at different rates, though with a new consciousness that savages may include "back-sliders" from established civilisations. For the first time, Gilman appears to doubt that progress is inevitable. Gilman also examines what constitutes the concept of "civilisation". Van, the narrator, offers a rather simplistic division of the world into the civilised white nations, and the rest of the world, described as "black, red, brown and yellow" (300). Gilman then sets Ellador to interrogate this assumption, pointing out inconsistencies such as categorising China as uncivilised when it is "one of the very oldest civilizations we have" (300). Gilman sees the "dissimilar peoples" of our world as being "more separated by their varying psychology than by geography, politics, or race; often ignorant of one another, often fearing, despising, hating one another; and each national group, each racial stock, assuming itself to be 'the norm'" (300-1). She recognises that racial prejudice is not unique to white people. Van informs Ellador that "the flatter-faced Mongolians regarded us as hawklike in our aquiline features; and that little African children fled screaming from the unnatural horror of a first-seen white face" (301).

Elsewhere in the book, Ellador argues against the proposition that negroes were inherently lazy, incapable of learning or that there was "universal race antipathy" between black and white, using as examples the high price negro slaves used to fetch and the fact that there needed to be laws against miscegenation. Ellador concludes by offering "a list of achievements of the negro race... Their development in wealth, in industry, in the professions, even the arts..." (357-8). Gilman's argument still assumes that further racial progress is necessary, but does counter some of the more common prejudices of her day against black Americans. In *Ourland*, Gilman also criticised certain horrific aspects of America's past, most obviously the genocide of the Indians, as well

as America's crimes against Hawaiians through the introduction of syphilis and tuberculosis (307).

Gilman's anti-semitism is clearly problematic, although she tried to rationalise it as dislike of the Jewish people's lack of willingness to assimilate into American culture. In *Ourland*, Gilman describes the custom of endogenous marriage as "primitive" and categorises Jews as arrested in a tribal stage of development, unable to achieve nationhood, which to her was a more advanced form of social organisation. This analysis allows Gilman to conclude that "the more definitely organized peoples have, not a racial, but a sociological aversion to this alien form of life, which is in them, but not of them" (360). Judith Allen's analysis of Gilman's anti-semitism situates it within the context of the increasing anti-semitic propaganda of the inter-war years, and as part of Gilman's general dislike of androcentric religious practices. Allen argues that "[t]he more she contemplated and compared world religions, the more she blamed them for androcentric subjugation of women. On this count, Judaism seemed to be among the worst" (310).

It is clear that Gilman's recognition of cultural relativism and America's problems went hand-in-hand with a need to focus on preserving the values of the America she knew. She no longer believed that anyone and everyone could be trained to become a good American, or even that it would be desirable to achieve this. Gilman argues that nations are built on people having similar ideas and coming from the "same general stock" and rejects the famous analogy of the "melting pot", asking "do you think that you can put a little of everything into a melting-pot and produce a good metal?" (*Ourland* 321, 323). Gilman was not alone in questioning mixed race immigration. Concern about levels of immigration began to grow with the closing of the frontier in the 1890s, and took on a racial focus in the early years of the twentieth century, with fears that the "native" Anglo-Saxon stock was being crowded out by immigrants from so-called inferior races. The economist Edward A. Ross coined the term "race suicide", which was taken up by Theodore Roosevelt and characterised as the "greatest problem of civilization" (Leonard 696). In 1916, the same year as Gilman published *Ourland*, Madison Grant wrote *The Passing of the Great Race* in which he argued that Nordic civilisations were being outbred by inferior races. By 1923, Gilman was demonstrating a similar belief in the importance of the

Nordic races to the well-being of America. In an essay entitled “Is America Too Hospitable” she proposed that only certain races mix well together:

> Since genus homo is one species, it is physically possible for all races to interbreed, but not therefore desirable. Some combine well, making a good blend, some do not. We are perfectly familiar in this country with the various blends of black and white, and the wisest of both races prefer the pure stock (1985).

Again, the contradiction between Gilman’s opposition to anti-miscegenation laws in *Ourland* and her preference for “pure stock” suggests that Gilman’s personal prejudices were at odds with her social philosophy She could not argue for America’s racial purity, since America was already a mix of races, or for its racial superiority, when it could be outranked by older civilisations such as India and China. Instead she was forced to concentrate on the composition of the racial mix, contending in the same article that “The American blend is from a few closely connected races” (1985). These she defined as the English, Dutch and Scandinavian, who owing to a combination of geographic, historic and cultural circumstances had provided “a distinct national character” for Americans, based on “a flexible progressiveness, an inventive ingenuity, a patience and a broad kindliness of disposition” (1988).

Gilman also felt threatened by what she perceived as the new immigrants’ lack of respect for America, their preference for their own languages and allegiance to their original country.[82] While the feminist element of Gilman’s prejudice against immigrants from cultures she considered to be more patriarchal than her own is consistent with her earlier work, her increasing focus on race as a problem indicates an erosion of her conviction that educated white Americans like herself represented the most advanced stage of human evolution, and could speak on behalf of the whole human species. Although Gilman’s ethnocentric stance was incontrovertibly racist, by not addressing issues of race Gilman’s earlier writing tended to appear less racist than her later works where she struggled with the loss of her own certainty of racial superiority. Historian John Higham argues that in early twentieth-century America “the regnant values of progressivism tended to inhibit racial anxiety” (174), while increasing levels of immigration and the demands for national unity

[82] See “Is America” 1988-9

of the First World War led to a more racist outlook on immigration and cultural assimilation. This tendency was certainly evident in Gilman's writing. Her 1923 article "Is America Too Hospitable" demonstrates a loss of confidence in America's ability to assimilate all races, leading to her opposition to immigration and distrust of certain racial mixes, as discussed above. Her observation in this article that "Almost any race is superior to others in some particular" (1988) demonstrates that Gilman did try to come to terms with other cultures, but her determination to justify her nativist prejudices on sociological grounds remained a barrier to her wholly overcoming racial prejudice or accepting the culture of certain racial groups.

Gilman's statement about race in her final work, her autobiography, *The Living of Charlotte Perkins Gilman* (1935), sums up the changes she observed within her own lifetime, during which she experienced a shift from the late-eighteenth-century assumptions of revolutionary France and America that humanity is all one and that "The Rights of Man" applied to everyone, to a greater consciousness of differences between races and nations:

> The Great War has shown us, lit by that world conflagration, the deep, wide, lasting, vital differences between races. Race-consciousness is increasing rather than decreasing, it is rising and moving more portentously than ever. The stir among Africans, the uprising in India, the sudden emergence of Japan, the huge efforts toward a more conscious national power in China ... all this does not bear out the innocent claim of Liberty, Equality and Fraternity which visualizes a world of brothers. (329-330)

By problematising race, Gilman becomes less naively ethnocentric in her discussion of America in relation to other nations, but more troubled by the problems of America's mixed racial heritage. This shift in focus is visible in *Herland* and *With Her in Ourland*, where Gilman contrasts the progressive homogeneity of Herland to the competing agendas of war-torn Europe and mixed race America. In the next section I look at the role of eugenics and the regulation of procreation in Gilman's quest for a more assimilated world, and consider how eugenics relates to Gilman's thesis that co-operation rather than war and struggle is the key to human progress.

4.5 Gilman's Eugenic Reputation

Gilman is credited by Ahmad with being "the first utopian author to implement both negative and positive eugenics" (57). Although the claim to being the first is debatable, Ahmad's assertion does highlight the fact that Gilman makes references to eugenics in all three of her utopian novels, as well as giving eugenic marriages a major role in *The Crux*. It is not surprising therefore that eugenics has joined racism in the charges directed at Gilman in recent years, even though Gilman's relationship to eugenics was complicated, and her endorsement of eugenics was not as whole-hearted as Ahmad's statement implies. For example, in *Moving the Mountain* the population has been stabilised and improved, but Gilman sought to emphasise that the salient element was not eugenics, but women's empowerment to make their own choices:

> This is not eugenics – we have made great advances in that, of course; but the chief factor in this change is a common biological law – 'individuation is in inverse proportion to reproduction,' you know. We individualize the women – develop their personal power, their human characteristics – and they don't have so many children. (58)

Lane argues that Gilman "vigorously dissent[ed] from the newly revived eugenics movement, which was rooted in the belief that most human traits were irrevocably genetic in origin and therefore unchangeable" (255). However, Gilman did share the eugenics movement's interest in health measures to ensure that diseases were not passed on, particularly sexually transmitted diseases. In *Moving the Mountain* a clean bill of health is required from "the Department of Eugenics" before a marriage license is issued (77-8) and those with hereditary diseases are "either prevented from transmitting the inheritance, isolated, or voluntarily living single" (134). More shockingly, the new state "killed many hopeless degenerates, insane, idiots, and real perverts", though not before trying to cure them of their criminality through "elaborate baths, massage, electric stimulus, perfect food, clean comfortable beds, beautiful clothes, books, music, congenial company, and wonderful instruction" (136). These measures, and the assertion that "Happy people do not become criminals" (136), show that Gilman regarded environmental factors as being just as relevant to delinquency as inheritance. Her commitment to the transmission

of acquired habits led her to view environment and heredity as closely intertwined. She saw criminals as a throwback to the past, describing anti-social behaviour as “a survival of a lower pre-social period”, perpetuated by poverty; in other words, criminality was an inherited tendency, occasioned by unnatural environmental conditions which prevented participation in the social evolution that the rest of society was undergoing.

“Making better people” is undoubtedly a strong theme of *Moving the Mountain*, as it is in Gilman’s other utopian novels, but the improvements in the quality of the population result from better education rather than from any kind of positive eugenics programme. For Gilman, the inheritance of acquired characteristics meant that improved conditions could be expected to lead to rapid changes in the health, well-being and morality of the population without requiring any selective breeding programmes. Gilman’s thesis was that responsible female choice of marriage partners would lead to improved health of the succeeding generation. Her denial that the improvements of *Moving the Mountain* are largely due to eugenics might be related to her dislike of such eugenically inspired schemes as “The Endowment of Motherhood” proposed by H. G. Wells. Picking up on the discourse of race suicide, Wells suggested that women from better quality households (i.e. middle-class women) should be paid to have more children. Gilman strongly expresses her disapproval of this scheme in *Moving the Mountain*:

> That turbid freshet of an Englishman, Wells, who did so much to stir his generation, said, “I am wholly feminist”- and he was! He saw women only as females and wanted them endowed as such. He never was able to see them as human beings and amply competent to take care of themselves. (76)

Eugenics was a problematic subject for Gilman as she genuinely believed in women’s potential to improve society through marrying the right men, but had a horror of women’s role being reduced to their reproductive function through schemes for positive eugenics. The alternative for her was education, or what she referred to as “humaniculture”, the proper rearing of human beings (85). Gilman argued that: “Social evolution is a distinct process. Below us, you see, all improvements had to be built into the stock – transmitted by heredity. The social organism is open to lateral transmission – what we used to call education” (101). In other words, evolution only used to occur through heredity,

but with the aid of education, it has speeded up and education has become a major mechanism for social evolution. For this reason, Gilman focussed on education, not just in *Moving the Mountain*, but in non-fiction works such as *Concerning Children* (1900). In *Moving the Mountain*, she proposed “child gardens” that would ensure that all children were looked after by specialists in “child culture”, relieving women of the individual burden of child rearing while ensuring that all children had “proper nourishment, and clothing, and environment – from birth” (112). It was these environmental factors rather than eugenics, which accounted for the rapid improvements in the health and behaviour of the younger generation in *Moving the Mountain*, which she described as being like another race: “Big, sturdy, blooming creatures, boys and girls alike, swift and graceful, eager, happy, courteous...” (110-11).

The focus of eugenics in *Moving the Mountain* was mainly on preventing the demonstrably unfit from breeding, and as such was not very different from the kind of measures proposed by writers such as Butler, Bellamy and Corbett. However, Gilman placed particular emphasis on the impact of sexually transmitted diseases, which was also central to her earlier novel *The Crux* (1911), where the traditional romantic marriage plot is subverted by the revelation that the potential groom has a sexually transmitted disease. Dana Seitler describes *The Crux* as a “eugenic-feminist regeneration narrative” because of its focus on physical health and evolutionary uplift (81). Evolutionary improvements were seen to result from women going out West to civilise the male-dominated society of a frontier town, where the imbalance in the female-to-male population allows women to pick and choose amongst the men to obtain the right husband. The “brilliant stillness of the high plateau” described as the women arrive in Colorado prefigures the elevated plateau of Herland, and suggests a utopian space where women can take on a range of roles not open to them in the restricted society of New England. However, at the core of the book is an insistence that women avoid “biological sin” and a sermon on the horrors of children born blind, deformed or twisted as a result of gonorrhoea. Before society can be transformed, the legacy of congenital defects arising from sexually transmitted disease needs to be eradicated, and the only way to do this is by not marrying the carriers. When the heroine Vivian discovers that her childhood sweetheart, Morton Elder, is infected with gonorrhoea, she foregoes marriage, mainly for the sake of her future children but also as part of a wider

programme advocated by her grandmother, to “religiously rid the world of all these ‘undesirable citizens’” (246). Although Vivian does ultimately marry, it is to a man who has learned to live like a woman in terms of the tidiness of his house-keeping and the moderateness of his personal habits. In the light of *Herland*, it could be postulated that the “undesirable citizens” are in fact men, and that the ultimate aim of Gilman’s feminism was the very non-eugenic fantasy of a society without men.

Gilman’s version of eugenic feminism was more connected to contemporary social hygiene movements than to issues of “race suicide”. In fact, Roosevelt’s opinion that deliberately avoiding having children made a man or woman “a criminal against the race” (Bederman 202) is contested within *The Crux*, where women are repeatedly told that it is their duty to marry, yet are not given the opportunity to do so. While the decision to relocate to Colorado is seen as a eugenically sound and common-sense solution to the lack of men, Gilman constructs it as the antithesis of the passivity that requires women to wait to be asked to marry. Her thesis is that if women set up business and become active members of society, then eugenic marriage between two healthy and equal partners will ensue. It can also be seen as a move towards restoring the natural working of sexual selection where the excess of men over women means that women can choose the best fathers for their children. However, eugenic marriage is not the main purpose of *The Crux*. Characters such as Dr Bellair who cannot have children because of being married to a man infected with gonorrhoea and Vivian’s grandmother, who is too old to have any more children, also flourish in this frontier environment, showing that for Gilman the most important aspect of the move is the empowerment of women to run their own business and interact with men on equal terms. Breeding takes place off-stage, and the marriages, some of them between mature characters, privilege companionship over sexual passion. Just as Richardson highlights rational selection and lack of passion in her description of eugenic feminism so Gilman’s characters show little sign of sexual passion in their marital choices, and they do not allow sexual love to override eugenic concerns, in particular the fate of their children.

There is also an absence of the biologically deterministic morality that equates women with superior moral standards. Mrs St. Cloud who preaches courtly love and high morality turns out to be a hypocrite and a destructive

influence, while the eugenic sin of Morton Elder is seen as a result of bad education rather than intrinsic male immorality. The representation of masculine immorality as being a boyish mistake supports the idea of sexual appetite as a relic of an earlier stage of evolution that more mature men like the eugenically named Dr Dick Hale have learned to control. However, fears of race suicide undermined support for masculine sexual restraint, legitimising the excessive male sexuality that Gilman had criticised in *Women and Economics*.[83] As such, it is hardly surprising that Gilman's view of eugenics focussed more on selecting the right partner than the necessity of maintaining the race. *The Crux* shows that Gilman's aims were firmly centred on female empowerment, equality in marriage, and healthy motherhood. Her eugenic programme was a modest one of preventing the next generation from being infected by sexually transmitted diseases.

Gilman's engagement with eugenics in *The Crux* and *Moving the Mountain* is a very pragmatic one, limited to the avoidance of congenital disease. However, in the imaginary world of *Herland*, where the active role of women in society is secure, and motherhood is a non-sexual act, Gilman is able to embrace a more radical version of eugenics, which looks not just at eradicating disease but also at raising the quality of the population through a meritocratic system of motherhood. In Herland, women have to be deemed fit to breed, and even then they are restricted to one child each, unless they are honoured with the opportunity of having a second child (69). Parthenogenesis takes away the pressure of choosing the appropriate partner, and leads to a shift away from avoidance of heredity diseases towards a celebration of lineage, arising from the women of Herland's proud boast of coming from "a 'pure stock' of two thousand uninterrupted years" (122). The assumption by the narrator that the women are of "Aryan stock" (54) invites interpretation of the eugenics within *Herland* as being concerned with racial purity. Asha Nadkarni describes *Herland* as Gilman's "baldest model of eugenic feminism, a nation where racial or sexual difference is irrelevant because Herlanders are of 'Aryan stock' and descended from a single 'race mother'" (226). Katherine Fusco argues that Gilman is trying to "identify a pure American genealogy" (429). Hausman asserts that the

[83] Bederman observes that "This widespread discussion of race suicide between 1903 and 1910 probably facilitated the development of modern ideologies of gender, in which sexual expressiveness became a hallmark of healthy manhood and womanhood" (205).

eugenics of *Herland* is more about "maternal fitness than racial difference" but points out that "the suggestion of an Aryan race reminds the reader of the linkage of eugenics to ideas concerning racial purity" (499). Kristen Egan also acknowledges the racial purity angle of *Herland*'s eugenics, not just in the women's single lineage, but in the male visitors' assumption that Aryan or white represented racial superiority (81-2). Yet, I argue, the main significance for Gilman of two thousand years of pure stock is not racial segregation, but the opportunity to break habits developed through subjection to men, in particular sexual habits. The time-span of two thousand years comes up repeatedly in juxtaposition with men or with the female-centred society their absence has created. The difference between the women of Herland and the women of Gilman's own world can be accounted for by "Two thousand years of one continuous culture with no men." (94). Lack of "sex-feeling" came about because "Two thousand years' disuse had left very little of the instinct" (92). The women of Herland see themselves as active participants in the world because "in the unbroken sweep of this two-thousand-year-old feminine civilization, the word *woman* called up all that big background [activity] .... and the word *man* meant to them only *male* – the sex." (137). The purity that most interests Gilman, it would appear, is the purity of a world without men. From this standpoint, parthenogenesis can be seen more as a device to allow reproduction without men than a metaphor for the rejection of miscegenation.[84] Another problem with parthenogenesis is that it relies on mutations to deliver improvements. Hausman argues that the whole issue of mutation "is problematic for Gilman, because mutation is a random factor in evolutionary genetics" whereas "Gilman consistently argued for planned progress and improvement" (499). However, a close reading of the scene where mutations are discussed suggests that the women of Herland by no means accept that mutation is the main force behind their progress. It is Terry, the character who represents the worst traits of patriarchal society, who asserts that acquired characteristics are not transmissible. But as the narrator reports, the Herlanders "never disputed our absolute statements, only made notes of them." In this case, they can be seen as humouring Terry when they respond: "If that is so,

[84] Seitler argues that Herland's parthenogenesis is a means of avoiding any potential for contagion from sexually-transmitted disease: "the women become pregnant by their own will, not by intercourse, thus eliminating the conduit for contagion that might lead to degeneration" (77).

then our improvements must be due either to mutation, or solely to education" (78). Gilman may have wanted to address criticisms of the kind that Terry is making, while leaving open the possibility that "acquired characteristics" play a role. The eugenic practices of Herland in fact strongly suggest that acquired characteristics *are* important. With a population bred from the same woman, the lack of diversity would mean that there would be very little benefit from allowing the most gifted (however that is defined in Herland) to breed. In fact, it could be argued, that society would benefit more from their virtues if they were not busy with childbirth. However, if acquired characteristics are passed on, then letting the best women have more children will continually raise the quality of the population. It is significant that *Herland* is the only novel in which Gilman advocates positive eugenics. Gilman seemingly could only countenance positive eugenics in this economy of low childbirth where it is no longer women's duty to have as many children as possible, but to refrain from breeding to maintain quality of life for all. Gilman contrasts the elevated motherhood of Herland with the "helpless involuntary fecundity" of her own world (68). This form of eugenics turns motherhood from a duty to a reward. In contrast to the eugenics of race suicide, or of endowment of motherhood, Gilman's model rests on self-restraint and denial. The women of Herland have to carry out displacement activities to prevent conception: "When that deep inner demand for a child began to be felt she would deliberately engage in the most active work, physical and mental" (70). In this environment Gilman can safely place motherhood on a pedestal, as "a Sacrament" which follows "a period of utter exaltation" (70), without there being any danger that motherhood will be seen as the only purpose of women.

In terms of the negative eugenics of Herland, Gilman seems to accept a more Mendelian approach to heredity. The "inherited characteristics of a long race-record" which "crop out from time to time – alarmingly" (82) suggest recessive genes. However, Gilman states that criminality took six hundred years to breed out, while egoism and excess sexuality were even more difficult to eradicate, suggesting that her chief concern is atavism, and the bad habits inculcated through millennia of women's subjection to men. The women of Herland do not need to enforce compulsory sterilisation, as most women with undesirable traits are either sterile or accept the need not to breed. Those few who do have children without permission have them removed to be brought up

by professional childminders, demonstrating again that for Gilman education was just as important as heredity. There is very little need for mutation in this system. Acquired characteristics provide for improvements in quality; education is the route towards innovation and negative eugenics roots out any persistent undesirable habits.

In *Herland*, as elsewhere, Gilman characterises sexual desire as an undesirable characteristic, associated with the excessive sex distinction promoted by a male-dominated society. Hausman notes that: “Reading Gilman's *Herland* in the context of her gynocentric evolutionism helps us to understand how the absence of sexual difference creates a society in which there is no sexual desire as such” (503). However, it is a society which despite the lack of difference and a two-thousand-year absence of men, still seems to fear sexual desire. Van comments: “who shall say what long-forgotten feeling, vague and nameless, was stirred in some of these mother hearts by our arrival” (92), and he suspects Alima of having “a far-descended atavistic trace of more marked femaleness, never apparent till Terry called it out” (130). Despite Gilman’s experiences of intense and possibly erotic friendships with various women including Grace Ellery Channing, Adeline E. Knapp and Harriet Howe she does not express any concerns over the possibility of same-sex desire.[85] In Herland there is a complete absence of sexual desire between women, and the only threat comes from heterosexual desire. Sexual desire towards men threatens the control over reproduction that has been established by the single-sex process of parthenogenesis. If men are to be reincorporated into the sexual economy of Herland, it has to be in terms of a completely different type of partnership where sex is for procreative purposes only and at a time of the woman’s choosing. Ellador is appalled by the idea that married people continue to have sex “in season and out of season, with no thought of children at all” (127). Gilman is at pains to show that constant sexual attraction is unnatural, and describes Ellador deliberately over-exposing Van to a de-feminised version of herself to take the erotic charge out of their relationship, until he discovers “that under all our cultivated attitude of mind towards women there is an older,

[85] Judith Allen reviews the evidence for Gilman’s possible lesbianism in Chapter 2 of *The Feminism of Charlotte Perkins Gilman: Sexualities, Histories, Progressivism*.

deeper more 'natural' feeling; the restful reverence which looks up to the Mother sex" (130).[86]

Gilman's concern with de-sexualising the relationship between men and women could, as Allen points out, be based on the lack of effective birth control and the fact that "more coitus meant more babies or more abortions for average women ..." (233). Alternatively, as Kristin Carter-Sanborn argues, rejection of sexual desire could be about an orderliness which eschews "[t]he Rabelasian world of excrement, blood, semen and other effluvia" (14). Carter-Sanborn contrasts Herland's orderliness with the chaotic savagery of the surrounding forests to support her argument that Gilman's feminism is imbued with imperialist racism. Kristen Egan also links Gilman's fear of masculine sexuality with fears of "racial contamination", but also with a concern for "environmental purification" (81-2). Certainly, control over sexuality is mirrored by a desire to control other elements of the environment. The women of Herland apply eugenic techniques to cats to tame their sexuality by muting their voice, and reducing the mating season to once a year (51). Fear of environmental contamination also surfaces in the saga of the Obernut moth. Ellador, as a young girl, discovers a beautiful butterfly and shows it to her teacher. The teacher praises her, not for discovering a rare butterfly, but for bringing her a pest to destroy: "We have been trying to exterminate them for centuries. If you had not caught this one, it might have laid eggs enough to raise worms enough to destroy thousands of our nut trees" (102). Here again in miniature Gilman is exposing the threat that limitless fecundity imposes on the environment. While Gilman's selective approach to what it is useful to preserve and what to destroy could be seen as a metaphor for racial preferences, it also ties in with the environmentalist concerns of the early twentieth century, and the Progressive agenda for rational scientific management of resources.[87] Jennifer Hudak comments: "Herlanders have civilized nature, modernized it", treating the land "as raw material to be shaped, molded, and altered so that it better serves their purposes." (466-7). The overall impetus of Gilman's ordering of the space and inhabitants of Herland is about maintaining a sustainable ecosystem where the

[86] In "Birth Control" (1915) Gilman argues on the subject of sex that "our present standard of 'normal indulgence' is abnormal" as in other species with the same gestative period "the impulse to that form of sex-expression comes only in a yearly season" (179).
[87] See Garland E. Allen for links between eugenics and the conservation movement in the early 20th century.

population does not exceed the carrying capacity of the land, rather than racial exclusion. Since “restful reverence” towards women and avoidance of sexual intercourse are not useful strategies for ensuring a high birth rate, it would appear that despite Gilman nativist allegiances, anxieties over “race suicide” were not central to Gilman’s concept of eugenics at the point of writing *Herland*.[88]

Another factor which militates against the idea that parthenogenetic purity is primarily a metaphor for racial purity is Gilman’s engagement with diversity within Herland. The physical diversity of Herlanders is striking by contrast to the hegemony of blonde, blue-eyed women in *Mizora*. Celis who marries the chivalrous Jeff is “blue-and-gold-and rose”, but Alima is “black-and-white-and red, a blazing beauty”, a description which hints at the elements of sexuality in her personality, while Ellador is “brown; hair dark and soft, like a seal coat; clear brown skin with a healthy red in it; brown eyes – all the way from topaz to black velvet” (91). Only the “healthy red” suggests that her skin colouring is the result of an outdoor life rather than any racial mixing. Gilman also makes a point of arguing that physical similarities do not lead to similarities in “ideas, feelings and products” (78). While there is little evidence of this in the text, it could be argued that the need to demonstrate the successful outcome of many generations of careful education leaves Gilman little choice but to emphasise the universal good qualities of her advanced society of women. They all have even tempers, perfect patience, good natures, lack of irritability (46), intelligence and social inventiveness (81). It would appear, as Carter-Sanborn puts it that “Years of feminine civilization have raised the mean, but narrowed the standard deviation...” However, I maintain that the “evident unanimity”, described as “the most conspicuous feature of their whole culture” (204), has another purpose, that of demonstrating an alternative, more co-operative model for evolution. The women are described as resolving the population problem “[n]ot by a ‘struggle for existence’ which would result in an everlasting writhing mass of underbred people trying to get ahead of one another”, but by thinking through co-operative solutions (68). Gilman is unwilling to depart from nature for her authority, so takes an anthropomorphised version

[88] However, see Weinbaum for the argument that “if Gilman's fiction is read through the lens of her nonfiction it becomes evident that both forms of writing are driven by fears of racial mixing that neatly coincide with the discourse of ‘race suicide’" (282).

of ants and bees as her model: “This place is just like an enormous ant-hill – you know an ant-hill is nothing but a nursery. And how about bees? Don’t they manage to co-operate and love one another?” (67). This argument, put forward by Jeff, the most romantic of the three men, leaves Gilman vulnerable to the counter-argument that insects represent a lower form of evolution than animals, or as Terry puts it “the higher grades of life are reached only through struggle—combat” (99). Gilman’s only answer to this is repeatedly to show the masculine violence of Terry being defeated by the co-operative actions of the women of Herland. Kathleen Lant argues that Terry’s attempt at raping Alima “uncovers the shameful secret at the heart of Gilman's novel: that, her feminist ideology notwithstanding, this story is almost exclusively impelled by the ‘sex-motive’” (303). However, I would argue that the ideological struggle in *Herland* is not just between masculine and feminine values, but between “survival of the fittest” where fitness is represented by strength and violence, and co-operative evolution, represented by the combined love and problem-solving skills of the citizens of Herland. As such, the sexually-motivated violence of Terry is a necessary component of the text, and Terry’s final attempt at “mastering” Alima is required in order to precipitate a resolution that leads to Terry’s expulsion, and the validation of the values of Herland. Nonetheless, Terry’s description of Alima kicking, jumping and yelling calls into question whether in fact violence has triumphed over co-operation on this occasion (143). However Alima’s removal to the far corner of Herland suggests that men and women cannot co-exist where violence and struggle continues between the two sexes, and that the only effective way forward from an evolutionary point of view is the mutually respectful partnership of sexual restraint that Van and Ellador work out.

It can be seen that the eugenics of *Herland* plays a dual role. Firstly, eugenic improvement of the population provide an evolutionary environment in which women can become the equals of men, allowing Gilman, as Nadkarni argues, to resolve the problem of the psychic hybridity resulting from the mismatched marriages between evolutionarily retarded women and over-sexed men that she introduced in *Women and Economics* (226). Secondly, parthenogenetic eugenics provides an alternative version of evolution that allows education and conscious striving for improvement to deliver evolutionary advance without being undermined by random chance or selecting for

secondary sexual characteristics, and reinforces Gilman's argument that social evolution is rooted in co-operation and education, not struggle and warfare.

In *Ourland* Gilman reiterates many of the same eugenic-related themes as in her previous works – the perils of overpopulation, sexually-transmitted disease, hereditary disease and the degrading effect of overindulgence in sex. Gilman continues to be ambivalent about eugenics as a movement, referring derogatorily to "compulsory eugenics" (345). However, her interest in making better people, through a variety of means, remains. Ellador asserts that people could be changed within three generations: "You could improve this stock, say, 5 percent, in one, 15 in two and 80 percent. in three" (375). While this calculation might suggest a purely eugenic process, Ellador makes it clear that education and environment, alongside any corrective negative eugenics are the main factors: "There is the wide surrounding help of conditions, such conditions as you even now know how to arrange. And there is the power of education – which you have hardly tried. With these all together and with proper care in breeding you could fill the world with glorious people – soon" (375).

Ourland shows Gilman's strong distaste for birth control, exemplified by Ellador's horror at the suggestion that "removal of parental power is no loss of 'sex'" (379). However, by the 1920s Gilman came to accept birth control as a necessity. In "Progress through birth control", an article published in 1927, fear of over-population and the contribution of population pressure to war led Gilman to conclude reluctantly that birth control had a role to play. She argued that it was women's duty to regulate population levels, and have more children "if her race is decreasing" and fewer if her country gets overcrowded. She continued to apply the principle she explored in *Herland* of a rational calculation of the carrying capacity of a country, and to see reproduction not as a personal choice but civic duty, and one that belonged to women not men. "Biologically, politically, economically and ethically, women should face their special work of regulating and improving the race," she declared (628). However, Gilman reconciles herself to the use of birth control with the thought that those who use it will leave no successors. She argued that pending the development of "a race less sex crazy than at present, and capable of rational continence when it is necessary", birth control had a place in restricting the size of families in the service of eugenics, and maintaining wage competition (629). By this time, aged 67, Gilman was comfortable about chastising her fellow American women for

not producing enough children, even though she herself had only had one child. Unlike in her earlier fiction, race suicide is clearly at the forefront of her mind when she warns against white American women reducing their birth-rate:

> For the women of a race to become slackers in this primitive duty is contemptible. The charge lies close at our own doors, for the women of the stock that made our country, and whose birth rate used to be such that if they had kept it up we should be as numerous as we are now— and Americans, without any immigration whatever — these women have so ignored this duty that some of our highest types have a mere fraction of a child, as it were. (629)

Gilman also became more concerned with the potential dysgenic effect of welfare and health care. In the article “Birth control, religion and the unfit” (1932), Gilman recommends sterilising the unfit and laments, apparently without any sense of irony, that there is opposition to such legislation not just from the religious, but from those deemed unfit themselves. She picks up on growing concerns about sub-standard mental ability, declaring that “We are mortified at our moronic average, alarmed at the increasing numbers of those far below it” (108).

These two articles show how much Gilman’s views on eugenics changed later in life, and have influenced the interpretation of the eugenic agenda of Gilman’s utopian fiction. In the 1910s, when Gilman wrote her three works of utopian fiction, she was mainly concerned with the effects of sexually transmitted disease and rooting out hereditary disease. By the 1930s, she was more focused in on mental disability which by this time had become the target of eugenic sterilisation programmes.[89] Historians Wendy Kline and Daniel Kevles both point out the link between the development of intelligence testing and the assumptions about the eugenic necessity of sterilising those labelled as educationally sub-normal. In *Herland* and *Ourland* Gilman expresses shock at the idea of abortion or sterilisation, but by the 1930s she was openly calling for sterilisation. It is possible to argue that the seeds of these more extreme positions were already emerging in *Herland* and *Ourland*, but it should also be noted that eugenics itself became more extreme in 1920s and 1930s America. Kevles discusses the impact of social changes such as industrialisation,

[89] The American eugenics movement had targets to sterilise or segregate 10-15 million of the so-called unfit (Brave and Sylva 42-3).

immigration and the excessive growth of cities in the early twentieth century on the rise of the eugenics movement in the USA, while Thomas Leonard points out concerns over the dysgenic effects of the rise of industrial capitalism (693). However, Gilman's concern with population levels, and women's role in regulating population remained a constant throughout her career. Writing *Herland* in 1914 in the early days of the Great War, Gilman saw Germany's aggression as based on population pressures leading to the need for more land. Initially a pacifist, she eventually came to support the war, but continued to maintain her opposition to the anti-progressive effects of war, which led to women's rights becoming subservient to military necessity.[90] Gilman also saw war as non-eugenic, claiming that "it eliminates the fit, and leaves the unfit to perpetuate the race" (*Man-Made* 215). Moreover, the process of war could lead to victory for the strongest, which offered another example where "natural" did not equate to right in Gilman's view:

> It was known that some races were stronger than others, and assumed quite rightly that the stronger should conquer the weaker and exterminate, disperse or enslave the conquered. This was certainly a "natural" process, following the precedent of all previous life forms. But when we observe that a conquering people is not necessarily superior to the conquered, and that social progress has been most seriously retarded by the destruction of more advanced societies by the less so, this primitive process of selection seems quite unsatisfactory. ("Progress" 626)

Gilman's desire to improve on natural selection as a process of evolution is expressed quite clearly here, just as it is in *Herland* where co-operation is promoted as an effective alternative model for social evolution in place of survival of the fittest.

Gilman's interest in "making better people", controlling levels of reproduction and evolution through sexual selection, align her with eugenicists, but she rarely advocates a state-controlled policy to achieve these measures. Education and collective endeavour are far more important to her than the forces of hereditary. *Herland* illustrates the effect of removing genetic factors from the evolutionary equation by demonstrating what can be achieved through

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[90] See Allen, who argues that Gilman "connected women's lack of citizen rights, especially suffrage, to the proliferation of pointless, horrifying global war" (124).

continuous improvements using the same original genetic material. Moreover, through removing the bias of sexual desire, Gilman is writing a manifesto for a new style of conscious evolutionary development based on co-operation between men and women to ensure that each generation will be an improvement on the last.

The sheer volume of Gilman's writing makes it difficult at times to reach clear and consistent conclusions on everything that she thought. However, her belief in social evolution remained a constant factor throughout her writing. Human beings were in the process of evolving towards a better future as a result of the qualities developed through the complex collective transactions of living and working together. Gilman's vision of how social evolution would be achieved changed over time from being an unstoppable force evidenced by the strengthening women's movements of her time, to one that needed fostering through education and political commitment to change. However, the key elements in Gilman's advocacy for social evolution remained the empowerment of women to take responsibility for their choices in marriage and for when they had children; likewise, for the education of those children to improve society. Gilman's life as an activist and writer exemplified her commitment to social change, but the changes in the political environment between when she wrote *Women and Economics* in 1898 and her death in 1935 led to Gilman wrongly identifying immigrants, Jews and the so-called feeble-minded as being a threat to the social progress she had worked so hard to achieve. Nonetheless, by historicising the development of Gilman's social philosophy it is possible to get a better understanding of the role of race and eugenics in Gilman's utopian fiction, and fully appreciate the utopianism of her vision without reading back into her fiction views which she developed at a later date in response to changing political conditions. By returning the focus to Gilman's utopianism, it can be seen that Gilman was able to build on aspects of Darwin's work often neglected by her Darwinist contemporaries to develop a more positive, utopian version of Darwinism by providing a focus on evolution through co-operation, education and responsible sexual selection, rather than competition and struggle for survival.

5. Eugenics and the "Dystopian Turn"

The previous chapters have shown that by the early twentieth century the idea of eugenic improvement of the population had become an established element in the toolkit for creating the perfect fictional utopia. In many cases eugenics converged and interacted with other late-nineteenth-century concerns such as improved physical health, social purity, Malthusianism and birth control. In this chapter I look at the representation of eugenics in dystopian fiction, and argue that even where eugenic measures are perceived as dystopian, the idea of social improvement through eugenics retains an element of attraction and a utopian resonance despite some of its disturbing implications. Dystopian fiction of the late nineteenth and early twentieth centuries barely seems to register eugenics as an issue. For example, H. G. Wells in *When the Sleeper Wakes* (1899) plays on fears of overpopulation, mega-corporations, urban sprawl and mechanisation, but he only touches on eugenics in the form of a nod towards the Nietzschean superman. Eugenics does become more evident in the dystopias of the 1920s and 1930s. Yevgeny Zamyatin's *We* (1924) and Charlotte Haldane's *Man's World* (1926) both explore the consequences of state control over reproduction. Aldous Huxley makes use of eugenics, alongside behavioural conditioning, to create the dystopian atmosphere of *Brave New World* (1932), but his attitude towards eugenics remains ambivalent. It was not until the rise of Nazism in the 1930s that eugenics came to seem truly dystopian, as for example in Katharine Burdekin's *Swastika Night* (1937).

Raffaella Baccolini and Tom Moylan describe the late twentieth century as taking a "dystopian turn", but a similar term might also apply to the early twentieth century when utopianism spawned a more cynical undercurrent of dystopianism that questioned the utopianism that had come so naturally to late-nineteenth-century writers.[91] Krishan Kumar emphasises the close connection between utopia and dystopia, seeing dystopias more as a critique of the aspirations of utopianism than a commentary on the dystopian elements of existing societies. In a similar vein, Gary Morson identifies two sub-genres of dystopia, one "that discredits utopias by portraying the likely effects of their realization, in contrast to other anti-utopias which discredit the possibility of their

[91] Such works were known as anti-utopias up until the 1960s, but for consistency, I will use the modern term dystopia throughout.

realization or expose the folly or inadequacy of their proponents' assumptions or logic" (116). My analysis focuses on the first type, dystopias which, even in satirical mode, seriously engage with the utopian ideas they present, sometimes to the extent that it is hard to disentangle which ideas the author is critiquing and which they might be endorsing. I also elaborate on two aspects of Kumar's concept, the future orientation of dystopia, as a critique of what does not yet exist, and the strong connection between utopia and dystopia. Wells wrote *When the Sleeper Wakes* partially in response to *Looking Backward* and then went on to write his own work of utopian fiction *A Modern Utopia* (1905), which offers a more positive version of ideas presented in *Sleeper*. Huxley wrote *Brave New World* in response to the Wellsian utopia, but then went on to write his own utopia, *Island* (1962). Haldane's *Man's World* can be read as either utopian or dystopian, while prior to writing *Swastika Night*, Katharine Burdekin adopted a utopian perspective to critique 1930s Britain in *Proud Man* (1934).

In this chapter I trace the development of eugenics as a specifically dystopian idea within the dystopian fiction of the first four decades of the twentieth century. I begin at the very end of the nineteenth century by looking at how Wells developed some of the more pessimistic implications of Darwin's theory of evolution in his early scientific romances, specifically in *When the Sleeper Wakes*. I then examine the rise of the eugenics movement in the United Kingdom and the United States in the early twentieth century and its literary footprint in dystopian fiction set within the scientifically managed state. I argue that although eugenics plays a significant role in *We* and *Brave New World*, it is mass-production and the loss of individuality resulting from scientific rationalisation of state resources rather than eugenics itself that concerns these authors, while in *Man's World*, the eugenics of the scientific state is represented as being for the ultimate good of humankind. Finally I focus on the future history of a Nazi-dominated Europe in *Swastika Night* to illustrate how eugenics completed the transition from utopian to dystopian in the representation of a society where women are reduced to the status of breeding animals, and full citizenship is reserved for men of German blood.

5.1 H. G. Wells and the Modern Dystopia

When H. G. Wells laid out his manifesto for the post-Darwinian utopia in *A Modern Utopia*, he saw himself as writing a specifically modern form of utopia. However, it is Wells's contribution to the invention of the modern dystopia that has had more impact in genre terms. Mark Hillegas suggests that "Although Wells's work had various ancestors, it is from him that the writers of anti-utopias learned the use of this form" (5). Wells's early scientific romances, written in a spell of intense productivity from the publication of *The Time Machine* in 1895 through to *The First Men in the Moon* in 1901 explored some of the more dystopian aspects of evolution. Although Samuel Butler and Edward Bulwer-Lytton had been ambivalent about the long-term consequences of evolution, Wells's projections for the future of the human race were even bleaker, as he believed it likely that humans would degenerate or be out-evolved by other species. Wells was first exposed to ideas of evolution when he studied under T. H. Huxley at the Normal School of Science in 1884 for what Wells describes in his autobiography as "beyond all question, the most educational year of my life" (*Experiment* 201). Reconciling Huxley's concept of the brutal "cosmic process" of evolution with the "ethical process" necessary for social progress was to become one of the central issues of Wells's early work. During the early 1890s, while pursuing a career as a scientific journalist, Wells frequently returned to the question of man's evolutionary position, emphasising what Patrick Parrinder describes as a "sense of dethronement" (49). Wells worried that human generations did not occur fast enough to benefit from natural selection, and feared that humanity might be outflanked by faster breeding species. This fear also lent power to his concerns about "the natural man, who is the product of natural selection, the culminating ape", who in biological terms was barely evolved from the Stone Age, and whose instincts were destined to be in tension with the "artificial man" of modern civilisation ("Human Evolution" 217). The discrepancy between the high pace of development of modern civilisation and the slowness of human evolution was a key factor in Wells's critique of utopianism in his early novels. In his first novel, *The Time Machine*, Wells interrogates nineteenth-century assumptions of utopian progress by portraying an apparently idyllic pastoral world, only to reveal that the contented Elois are being preyed on by the bestial Morlocks and

that evolution has produced two not-fully human successors to humanity, one weaker and less intelligent, the other savage and degenerate.[92] In *The Island of Doctor Moreau* (1896) Wells parodies efforts to create utopia through a grotesque simulacrum of society invented by Doctor Moreau's biologically altered animals. However, it is in *When The Sleeper Wakes* that Wells creates his first fully-realised dystopian society. His vision of a repressive authoritarian regime, a sybaritic upper class seeking amusement in Pleasure Cities, the artificial environment of the overgrown "super city" and extreme class divisions was to influence later dystopias including Jack London's *The Iron Heel* (1908), Yevgeny Zamyatin's *We* (1924), Huxley's *Brave New World* and George Orwell's *1984* (1949). The projection of scientific progress against a backdrop of class warfare and political discontent allowed Wells to blend late-nineteenth-century ideas of progress with his evolutionary pessimism and to represent a society where the perfection of utopia is marred by greed, factionalism and decadence. It is this interplay of progress and pessimism in *When the Sleeper Wakes* which makes it a good starting place for exploring the relationship between dystopianism and eugenics at the end of the nineteenth century.

Kumar claims that "*When the Sleeper Wakes* was in fact the first of Wells's utopian stories" (187). He describes it as a transitional work within the oeuvre of an upwardly mobile Wells, containing all the elements of utopia, wrapped within "a largely anti-utopian fable" (187). On the other hand, Bernard Bergonzi is unable to see the utopian side to the world depicted in Wells's novel, calling it "repulsive rather than desirable", though he does concede that certain passages of the novel give "the impression that an idealizing and a satirical intention are *both* at work" (146-7). However, both critics agree that the reader is left unsure as to how Wells wants them to feel about his futuristic city and whether they are meant to admire or be horrified by its scientific inventions.

This difficulty may result partly from the opening chapters of *When the Sleeper Wakes*, which are structured like a utopian tale. As Ferns argues, dystopias tend to dispense with "the ponderous narrative mechanisms used to account for the visitor's transfer to utopia" and "begin *in media res*" with the narrative of someone living within the dystopian society (111). In *When the Sleeper Wakes* Wells uses exactly the same device as Bellamy to transport

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[92] For more details see Steven McLean, *The Early Fiction of H. G. Wells*; and Kathryn Hume, "Eat or be Eaten: H. G. Wells's *Time Machine*".

Graham, the sleeper, to the London of 2100. Graham experiences the usual disorientation, followed by amazement at the inventions and technology of the future city. However, here the resemblance to the utopian plot ends. Unlike Julian West, Graham's awakening destabilises a society already in the throes of revolution. Graham's guide to the world in which he has awakened is the revolutionary-turned-dictator Ostrog, rather than the benevolent Dr. Leete. Instead of being led to admire a perfected social system, Graham sees the dark side of this future London in the form of the oppression of the workers of the Labour Company, and their lack of access to natural light and air. Also, unlike most visitors to utopia, Graham eventually switches from being an observer to becoming an active participant in the political struggles of the new age, and the book ends with him plunging to possible death in his plane following a battle to defend the workers from Ostrog's troops. In effect, the plot structure of the novel turns from utopian to dystopian in the course of the story. It also acquires mythic resonances when Graham, whose Arthurian connections are signposted by his long sleep beginning in Boscastle, just along the coast from Tintagel, takes on the role of figurehead to the revolution. As Parrinder points out: "His final incarnation as an airborne knight-errant fighting off the dark hordes may be seen as a new version of the Arthurian Last Battle that gripped the imagination of so many of Wells's Victorian predecessors" ("Introduction" xxv).

Even though the structure and tone provide confusing signals for the reader, the main cause of the slippage between the utopian and the dystopian, I argue, is an apparent ambivalence in Wells over two elements in his future world, its technologically advanced civilisation and the oppressed/ enslaved workers that this civilisation has created. Graham is initially impressed by the signs of progress. He finds that clothing production has been automated, books can be played as cylinders, the alphabet had been rationalised and a form of TV had been invented. However, he is sickened to realise that the new technology is being used to relay live scenes of pornography. Likewise, his first impressions of the city show it as both breathtaking and inhuman:

> The place into which he looked was an aisle of Titanic buildings, curving spaciously in either direction. Overhead mighty cantilevers sprang together across the huge width of the place, and a tracery of translucent material shut out the sky. Gigantic globes of cool white light shamed the pale sunbeams that filtered down through the girders and wire. Here and

> there a gossamer suspension bridge dotted with foot passengers flung across the chasm and the air was webbed with slender cables. (35)

Wells's vocabulary emphasises the size of the city, it is "overwhelming", "Titanic", "mighty", "gigantic". People are mere dots on a bridge. The sky is roofed over, and artificial light is stronger than natural sunlight. The city represents the conquest of nature taken to extreme. Giant wind-turbines provide clean energy, but are also festooned with advertisements and have taken over the countryside "where once the hedges had interlaced, and cottages, churches, inns, and farmhouses had nestled among their trees" (115). Wells's nostalgia for the lost countryside and dislike of the claustrophobic city vies with his admiration for the engineering achievements of the future. Although Hillegas claims that, unlike most twentieth-century writers of anti-utopias, "Wells frankly could not see anything ugly or evil about the machine" (69), Graham does dislike the mechanical wet nurses he finds in the city's crèche and the whole system of mechanical child-rearing, as well as the Babble Machines which compete to shout news, advertisements and propaganda at the helpless populace of the underground city. Nonetheless, Wells's interest in technology and its potential effect on day- to-day life does tend to undermine the satirical and dystopian impact of his descriptions. For example, he allows himself to be momentarily sidetracked into explaining how improved transport systems would lead to the disappearance of the town and village, and how economic and social pressures would draw people into the cities. Wells anticipated that "After telephone, kinematograph and phonograph had replaced newspaper, book, schoolmaster, and letter, to live outside the range of the electric cables was to live an isolated savage" (117). For Wells, the city was the only option for these amenities and so the super-sized cities of the future world could simply be seen as "the logical consequence of an epoch of invention" (117).[93]

Yet, the city is at the heart of Wells's ambivalence over the high-tech new future he invents. At times, the city means civilisation, security, world peace. Wells evokes the World State he would promote in his later utopian fiction: "a vision of city beyond city, cities on great plains, cities beside great rivers, vast cities along the sea margin, cities girdled by snow mountains" (118). The world of 2100 is civilised, speaks mostly one language and has dealt with racial

[93] Wells would subsequently change his mind about the megacity, and following further analysis in 1900 concluded that "a period of town dispersal was already beginning" ("Preface" 8).

conflict (albeit in a European, imperialistic fashion). However, civilisation has a negative connotation as well, summed up in Wells's phrase: "The whole world was civilised; the whole world dwelt in cities; the whole world was property" (118). In *When the Sleeper Wakes*, Wells places freedom and civilisation in opposition to each other. Ostrog's niece Helen tells Graham that "The city – is a prison. Every city now is a prison. Mammon grips the key in his hands" (158). The cities of *When the Sleeper Wakes* are the means by which the poor have come under the control of the rich, through the concentration of labour in one place and monopoly employers like the Labour Company.[94] The city is symbolic of capitalism and the amassing of vast fortunes, as was the case in Gilded Age America after the Civil War. Parrinder notes that "The novel reflects the specific conditions of capitalism as perceived by Wells and his contemporaries at the end of the nineteenth century. Its principal features are American rather than English, just as the novel's skyscrapers were taking shape in fin de siècle Chicago and New York rather than in London" (Introduction xvi). However, the novel also reflects the appalling living conditions of the poor of London, which were coming under the scrutiny of commentators like the Reverend Andrew Mearns who coined the phrase "Outcast London" in his 1883 work "The Bitter Cry of Outcast London: An Inquiry into the Condition of the Abject Poor" and Charles Booth, who published four editions of his survey of living conditions in the East End of London, *Inquiry into the Life and Labour of the People in London*, between 1889 and 1903. In inventing the underground portions of London where the workers rarely see the light of day, Wells was imaginatively extending the conditions described by Booth when he wrote: "Even now, does not an East-end worker live in such artificial conditions as practically to be cut off from the natural surface of the earth?" (*Time* 61). W. Warren Wagar, in an essay on *Looking Backward*, suggests that "Wells used *When the Sleeper Wakes*, somewhat as he had used *The Time Machine* earlier, to question the premise that capitalism was doomed to defeat" ("Dreams" 113-14). The protagonist Graham, a Victorian radical, acts as a vehicle for contrasting utopian expectations with Wells's own forecast for the future. Graham had expected two hundred years of civilisation to lead to progress, but instead the

[94] However, the capitalism of *When the Sleeper Wakes* does seem somewhat socialist. There is the Labour Company to provide work for all, the British Food Trust, which sounds like a 1950s government body and the International Creche Syndicate to provide childcare.

hopes for freedom and peace of the Victorian age that he represents have been unfulfilled despite the technological achievements: “Great cities, vast powers, a collective greatness beyond our dreams.... How is it with the common lives? As it has ever been – sorrow and labour, lives cramped and unfulfilled, lives tempted by power, tempted by wealth, and gone to waste and folly” (209). Graham discovers that the opposition to capitalism had been ineffective because “any organisation that became big enough to influence the polls, became complex enough to be undermined, broken up, or bought outright by capable rich men” (122). Wells was no supporter of democracy, believing that politicians did not pay enough attention to scientists and other specialists. In 1901 he predicted that the next war would see the demise of “this grey confusion that is Democracy” to be replaced by “the higher organism, the world-state of the coming years” (*Anticipations* 175).

When the Sleeper Wakes also contains an evolutionary criticism of capitalism. The novel charts the beginning of the division between the rich and poor which ultimately leads to the two extreme tendencies of evolution represented by the Elois and the Morlocks of *The Time Machine*. The workers are portrayed as being “a distinct class, with a moral and physical difference of its own – even a dialect of its own” (189). By contrast the rich are represented as decadent pleasure-seekers. The final conflict of *When the Sleeper Awakes* pits “multitudes dulled by mindless labour and enervated by the tradition of two hundred years of servile security against multitudes demoralised by lives of venial privilege and sensual indulgence” (210-11). One of the problems with civilisation for Wells was that it meant suppressing the primitive instincts that had been so important to humanity’s survival. Steven McLean argues persuasively in relation to the *Time Machine* that the Time Traveller defeats the Morlocks by drawing on primitive, savage traits, suggesting that “Wells sees something of the “ape” and “tiger” as necessary to human progress” (40).[95] Similarly in *When the Sleeper Wakes*, Graham describes himself as primitive in

[95] McLean’s reference is to Huxley’s essay “Evolution and Ethics” where Huxley wrote: “For his successful progress, throughout the savage state, man has been largely indebted to those qualities which he shares with the ape and the tiger; his exceptional physical organization; his cunning, his sociability, his curiosity, and his imitativeness; his ruthless and ferocious destructiveness when his anger is roused by opposition” (Huxley 51-2). One of McLean’s central arguments is that Wells disagreed with Huxley’s concept of “ethical” evolution, and saw the competition element of the “cosmic process” as being necessary for human progress (McLean 40).

relation to the people of future London, but prefers his own instincts to the effete insouciance of the privileged class: “Civilisation has driven pain and danger so far off – for well-to-do people.... I would rather be a wounded sentinel freezing in the snow than one of these painted fools.... Their fountain of rage and fear and anger is sealed and closed, the habits of a lifetime make them cheerful and easy and delightful” (184).

At least among the working class the struggle for existence still continues. The labyrinthine underground passages of London are the scene of a “fierce, inglorious economic struggle” (119), which Wells dramatises further in “A story of the days to come” (1897), a short story set in the same world as *When the Sleeper Wakes*. In this story, a young married couple run out of money and are forced to work for the Labour Company. The husband, Denton, has to learn to fight his co-workers to survive his daily shifts in the factory. Wells depicts the couple as falling into a horrific bestial world where all the civilised behaviour of their previous life is meaningless. Their archaic interests in Victorian furniture and poetry are of no use to their day-to-day existence, where only animal characteristics such as strength, agility and passion can help them. This story highlights Wells’s ambivalence over the evolutionary potential of the working class. They have the energy that he admires, but not the values and education. Nevertheless, Graham sees the workers of future London as the best hope for change in the city: “Was this city, this hive of hopeless toilers, the final refutation of his ancient hopes? Or was the fire of liberty, the fire that had blazed and waned in the years of his past life, still smouldering below there?” (125). Graham backs the workers not because he is working class or necessarily even sympathises with them, but because he sees more hope for the future in them than in the decadent upper class. But at the same time Graham fears the inhuman power of the mob and what their force might do once awakened. His descriptions emphasise the frightening nature of the crowd: “monstrous crowds, packed masses of indistinguishable people, clamouring his name” (72) and their daunting unanimity: “The whole mass of people was chanting together.... And the feet of the people were beating time – tramp, tramp” (73). Wells’s descriptions echo the concerns over crowd behaviour of 1890s Britain, encapsulated in Gustave Le Bon’s influential work, *The Crowd*, translated into English in 1896. Le Bon’s description of the group consciousness of crowds concludes that:

> Whoever be the individuals that compose it, however like or unlike be their mode of life, their occupations, their character, or their intelligence, the fact that they have been transformed into a crowd puts them in possession of a sort of collective mind which makes them feel, think, and act in a manner quite different from that in which each individual of them would feel, think, and act were he in a state of isolation. (27)

Le Bon was no advocate of the "wisdom of the crowd"; he thought that crowds were lacking in intelligence and overly suggestible. Wells, through Graham, expresses similar doubts. The mob is inefficient: "Think of this foolish tumult, that cannot even find its weapons"(215) and not susceptible to the forces of reason and progress: "But the crowd ... was a crowd still, helpless in the hands of demagogue and organiser, individually, cowardly, individually swayed by appetite, collectively incalculable" (120). Ostrog, for all his efficiency, misjudges the crowd. He does not see that having used concepts of freedom to manipulate the crowd, he cannot just shut them down again, and is surprised that "this vague out-of-date humanitarianism" (164) has taken root in their psyche. All the same, Ostrog believes that the crowd can be controlled, through the propaganda of the Babble Machines, and if necessary through force. Their subjugation is inevitable: "Suppose – which is impossible – that these swarming yelping fools in blue get the upper hand of us, what then? They will only fall to other masters. So long as there are sheep Nature will insist on beasts of prey" (167). Ostrog's solution for dealing with the rebellion is "the black police". While the racial politics of Graham's insistence that "White men must be mastered by white men" (197) are dubious, the idea of countering crowd violence with representatives of what the Victorians saw as a more primitive people, fits with Le Bon's assertion that "a man descends several rungs in the ladder of civilisation" when he joins a crowd (32). Ostrog sees the African police as more reliable because they have never been exposed to the revolutionary ideas of their European counterparts: "They are fine loyal brutes, with no wash of ideas in their heads – such as our rabble has" (164). But Ostrog misjudges the impact of using African troops, as it is the news of their arrival that triggers the revolt, and causes Graham to break with him. It could therefore be argued that the workers are not so much fighting for freedom as to maintain their place in the racial hierarchy, and that Graham's heroic defence of the city is more about

preventing planes containing a thousand “half-savage negroes” from landing than defeating Ostrog.

John Carey in *The Intellectuals and the Masses* (1992) accused Wells of wishing to get rid of the “mass of low-grade humanity such as inhabits the underground in *When the Sleeper Wakes*” (123). While Carey is not wrong in highlighting Wells’s fears of the degenerative potential of the uneducated masses, it is too simplistic to take the views of Ostrog on the crowd as being Wells’s own. In fact, a more subtle debate is being played out between the values of Romanticism and the evolutionary technocracy of the late Victorian era.[96] Ostrog himself admits to reading Shelley and dreaming of liberty in his youth, but he has moved on to a belief that “some day the Over-man may come, that some day the inferior, the weak and the bestial may be subdued or eliminated”(166). The Over-man is clearly a reference to Nietzsche’s Űbermensch, introduced in the first book of *Thus Spake Zarathustra* (1883). For Nietzsche, the Over-man represents the next phase of human evolution. Humans are at “the great noontide” standing midway between animal and superhuman in what Nietzsche represents as “the journey to a new morning” (104).

Ostrog equates the Over-man with the “aristocrat”, not the decadent upper-class pleasure-seekers of the city, but the winners in the game of evolution who will drive progress. “It is the way that change has always travelled. Aristocracy, the prevalence of the best – suffering and extinction of the unfit, and so to better things” (166). In terms of the Huxleyan debate between “cosmic nature” and “ethical nature”, Ostrog represents the triumph of “cosmic nature”. The “prevalence of the best” is just another term for “survival of the fittest”. Ostrog’s project can be seen as similar to that of Moreau’s in *The Island of Doctor Moreau,* except that instead of trying to turn animals into humans, he is trying to turn human beings into a higher form of life. Ostrog argues that “The world is no place for the bad, the stupid, the enervated. Their duty – it’s a fine duty too! – is to die. The death of the failure! That is the path by which the beast rose to manhood, by which man goes on to higher things” (167). Ostrog’s reductive certainties that he can suppress the workers and lead the rich to “graceful destruction” in the Pleasure Cities, which he characterises

[96] Michael R. Page gives some background to the argument that Wells was heavily influenced by the Romantic poetry of Shelley and Blake (150).

as “the excretory organs of the State” (167) are contested by Graham who believes “there is something resists, something you are holding down – something that stirs and presses” (165). Graham’s words are an echo of Moreau’s when in his frustration at failing to reshape the brains of his experimental animals he declares that there is “something that I cannot touch, somewhere … in the seat of the emotions. Cravings, instincts, desires, that harm humanity” (Wells *Island* 78). With the character of Moreau, Wells shows that there are limits to what science can achieve to accelerate evolution. With Ostrog, he presents science in the hands not of the scientist, but the military dictator with unlimited resources, and in this case the outcome is much less certain. However, like Moreau, Ostrog’s social experiment gets out of hand. Ostrog portrays Graham’s nineteenth-century dreams of “human equality” and “a socialistic order” (197) as anachronistic, but these are in fact the ideas that are motivating the rebellion. These concepts that Ostrog sees as empty and redundant are more motivational than he realises and cannot be eradicated by the usual forces of mind control. Helen, Ostrog’s niece, sums it up: “Ostrog has awakened something greater than he dreamt of – he has awakened hopes” (161). In this respect, *When the Sleeper Wakes* is far more optimistic than Wells’s other scientific romances of the 1890s. Nineteenth-century values and dreams, however racist they may seem to us today, are represented as still having power beyond the era of their inception, and as being vital for the advancement of humanity.

Some of the contradictions of *When the Sleeper Wakes*, it can now be seen, stem not from Wells’s ambivalence but are part of a deliberate dialectical process. The contrast between utopia and dystopia in the representation of the London of 2100 play the same role of highlighting the divisions between the rich and poor of its citizenry, as Wells achieved in *The Time Machine*, where, as Linda Dryden describes:

> [P]hysical London-of-the future mirrors the evolutionary decline and split of its citizens. ... The upper world of meadows, exotic vegetation, neglected culture and crumbling architecture implies the decadent leisure of those who benefit from the Morlocks’ toil. The claustrophobic, foul-smelling caverns underground, throbbing and humming with the vibrations and din of unspecified monstrous machinery are the underbelly of the metropolis. (162)

The volatility of the crowd and Graham's defence of his Palaeolithic habits are part of a debate over the value of primitive instincts to humanity in an age where technology has taken away the role of physical courage. The two sets of characteristics are interrogated more overtly in "A Story of the Days to Come" through its pairing in the same collection with "A Story of the Stone Age". "A Story of the Stone Age" goes back to prehistoric times to consider the forces at play in the creation of modern man. In "A Story of the Days to Come" Denton overcomes his despair at the realisation that his escape from the Labour Company has come through chance rather than his own exertion by recognising that, although humans are latecomers in terms of evolutionary time, they are gradually making progress. By contrast, the men of the Stone Age are "but shapes of men, creatures of darkness and ignorance, victims of beasts and floods, storms and pestilence and incessant hunger" ("Days to come" 322-3). Richard Pearson argues that cultural evolution was far more important to Wells then biological evolution as he saw humanity as being biologically static. Wells wrote that "man (allowing for racial blendings) is still mentally, morally, and physically, what he was during the later Palaeolithic period" ("Human" 211). Wells saw social rituals and taboos as being necessary to hold in check humanity's savage tendencies. Therefore, by abolishing these taboos and allowing the powerful to take what they want in *When the Sleeper Wakes* Wells was not just critiquing capitalism, but continuing the debate over whether progress without social justice is counter-evolutionary. Graham's alarm on discovering that moral codes had been dispensed with, suggests that the absence of moral evolution is an important element of Wells's dystopian vision of the future: "These people were two hundred years further on in the march of civilisation than the Victorian generation. It was not likely they would be less – humane. Yet they had cleared their minds of formulae! Was humanity a formula as well as chastity?" (56). The dystopian critique of *When the Sleeper Wakes*, I argue, comes from this central idea of a society built around scientific progress without any guiding ethical principles and the organising powers of civilisation being turned towards exploiting humans for profit, rather than creating improvements for all.

While *When the Sleeper Wakes* does not have the consistency and impact of some of Wells's other scientific romances of the 1890s, it does provide a thorough overview of the dystopian issues that were concerning Wells

at the time.[97] It is important to note therefore that eugenics only appears in *When the Sleeper Wakes* obliquely and by implication. There is no governmental plan to regulate marriage or requirements for certificates of eugenic health. There is no programme to prevent the swarming masses of the workers from having children. Ostrog does promote the Pleasure Cities as a eugenic measure for the upper classes: "They go there, they have their time, they die childless, all the pretty silly lascivious women die childless, and mankind is the better" (167). But there is no coercion involved in the process. Likewise, in "A Story of the Days to Come" lifestyle and environmental conditions determine the eugenic outcome. Elizabeth's rich suitor discovers that his life of indulgence and vice has ruined his constitution, so he cannot marry Elizabeth and have children. Also, Denton and Elizabeth's child, originally healthy, dies once they have been forced to don the blue canvas of the Labour Company. This death can be seen as a symbolic, for the child had already been placed in a crèche where the efficiency of the electronic nurses is meant to result in lower death rates than the Victorian system of individual motherhood. The child dies because the dehumanisation of the labour pool only allows the roughest, and least civilised to survive, suggesting the counter-evolutionary effect of the Labour Company's policy of providing work and shelter for all. The mechanised crèches of the middle class also have a eugenic air to them in the sense that children are no longer seen as individuals, but resources to be raised in the most efficient manner possible to benefit the state.

Ostrog's endorsement of the coming of the Nietzschean Over-man also provides a link to eugenics, as discussed in the introduction. Ostrog, however, is not trying to *breed* the Over-man. In his religion, evolution, if left to run its course will inevitably result in the extinction of the weak and the coming of the Over-man. In the next section of this chapter I compare Ostrog's vision of the Over-man with the eugenic ideas that Wells developed in the early twentieth century. I argue that, despite similarities in use of language between Wells and his creation Ostrog, Wells saw eugenics as a means of escaping the

[97] Wells himself saw the story as rushed and unsuccessful, leading him to publish an edited edition in 1910 under the title *The Sleeper Awakes*, which mainly addressed his dissatisfaction at the suggestion of a love story between Graham and Helen, the niece of Ostrog. However, by 1921 Wells was happy to claim the original edition as the first in a series of books which he described as "fantasias of possibility" ("Preface" 7).

unsatisfactory evolutionary trajectory of humans, while Ostrog embraced the "cosmic process" of evolution, and could assert, without resorting to eugenics, that "The end will be the Over-man – for all the mad protests of humanity. Let them revolt, let them win and kill me and my like. Others will arise – other masters. The end will be the same" (167).

5.2 Wells, Eugenics and the Death of the Over-Man

Wells's career underwent a change of direction at the start of the twentieth century when he published *Anticipations* (1902), a piece of prophetic writing which set him up as a social commentator and forecaster.[98] The book, which was first written as a series of papers for the *Fortnightly Review* in 1901, sold unexpectedly well.[99] Wells regarded it as a new type of work, describing it in his autobiography as "the first attempt to forecast the human future as a whole" (*Experiment* 645). John S. Partington is sceptical about its originality, suggesting that it was "simply an experiment in extrapolation" (51), but Wells saw it as being very different from the "exaggeration of contemporary tendencies" which he had employed in *When the Sleeper Awakes* (*Experiment* 645). Wagar describes it as "the first comprehensive nonfictional example of innumerable Wellsian exercises in utopian speculation and prophecy" (*H. G.* 78). Although Wells's articles do start off as simple forecasts of future trends in such areas as transportation and cities, he moves rapidly into analysing the impact of social forces and new technology on the development of the human race as a whole, and developing ideas for a "New Republic", governed by an intellectual elite. The growing ambition of the work can be seen in the change of title from "Anticipations: An Experiment in Prophecy" in the *Fortnightly Review* to *Anticipations of the reaction of mechanical and scientific progress upon human life and thought* when published in book form. The act of forecasting moved Wells away from considering the inevitable fate of humanity as described in his earlier scientific romances to looking at solutions. *Anticipations*

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[98] Wagar sees this as a second career which Wells embarked on alongside becoming a novelist in the literary mainstream: "One course that Wells chose in or about 1900, was to harness himself in the service of world reconstruction, the second of the two careers on which he embarked after the his early successes in fantasy and science fiction" (*H. G.*16).

[99] Wells reported in his autobiography: "Macmillan's, my English publishers, were caught unawares by the demand and had sold out the first edition before they reprinted. It sold as well as a novel" (646).

can be seen as marking the beginning of a phase of utopian writing, and also the beginning of Wells's codification of his ideas about an improved future for the human race.

However, the positive future that Wells portrays in *Anticipations* is set against the threat of slipping down into the abyss. Wells uses the word abyss over thirty times in the book, coining the phrase "People of the Abyss" as shorthand to describe the uneducated working class and agricultural labourers who were in danger of being left behind by modern society. He sees them not as a resource to be manipulated or exploited as his character Ostrog did, or surplus people to be eliminated, but simply as those not well equipped to survive in the modern age of machine power. However, as Wells gets more involved with developing ideas for his ideal future "New Republic", he moves from a position where he predicts that it will be the destiny of the "People of the Abyss" to die out in a process that "will be largely or entirely out of all human control" (280) to discussing measures that the New Republic might take to accelerate the process through birth control and by making "the multiplication of those who fall behind a certain standard of social efficiency unpleasant and difficult" (315). Wells also proposed to eliminate what he saw as the surplus populations of other less able races, "those swarms of black, and brown, and dirty-white, and yellow people, who do not come into the new needs of efficiency" (317), though he does make it clear that race is not as important a criteria for citizenship as efficiency: "Whatever men may come into its efficient citizenship it will let come—white, black, red, or brown; the efficiency will be the test" (316). Partington, a strong supporter of Wells in other respects, describes the eugenic proposals of the final chapter as "detestable, indeed murderous, public policy" (51). Partington argues that Wells was so shocked by negative reactions to *Anticipations*, in particular that of his friend Joseph Conrad, that he made a "volte-face" and completely repudiated eugenics.[100] It seems doubtful that Wells regretted *Anticipations* as much as Partington suggests, since in his autobiography he refers to *Anticipations* as "the keystone to the main arch of my

[100] Anticipations has attracted criticism from a number of critics, including Carey who picks up on the term "People of the Abyss" to support the hypothesis that "anxiety about overpopulation, rooted in his childhood vision of woods and fields destroyed at Bromley, is the key to Wells's reading of modern history" (Carey 119), while Michael Coren, in his revisionist biography of Wells, describes *Anticipations* as "the most structured and complete manual of eugenics ever to be written by a reputed author" (69).

work" (*Experiment* 643). Also, not all reaction to *Anticipations* was negative. The book sold out its first edition (Searle 52), and many of Wells's ideas were picked up with approval, winning praise from Sidney and Beatrice Webb, founders of the Fabian Society.[101] Wells's proposals of the final chapter can also be seen as a response to his earlier cosmic pessimism where the only two options for the future were the weakness of the devolved Eloi or the brutality of the degenerate Morlocks. In *Anticipations* Wells comes up with a middle way, government by a self-selecting elite, the New Republicans (who would later turn into the Samurai of *A Modern Utopia*), and so he becomes concerned with adjusting the direction of human evolution in favour of the portion of the population who can contribute most to human progress. Wells believed that discouraging the inefficient from breeding would re-start "a process of physical and mental improvement in mankind, a raising and elaboration of the average man, that has virtually been in suspense during the greater portion of the historical period" (*Anticipations* 307). Wells's apparent callousness can also be seen within the context of two facets of his thinking, explored in various essays. In *The Discovery of the Future* (1902), he argues that the future is fixed and determinate, and that the social forces at work lead to the future being just as quantifiable and knowable as the past. For this reason, he writes off whole groups of people in a fatalistic fashion. However, "The Rediscovery of the Unique" (1891) asserts the fallacy of classification. Wells saw individuals as unique and labels as a convenience, so while Wells sounds dismissive of whole classes of people, he is not being essentialist. Rather, as Philmus and Hughes observe, Wells is switching between two different standpoints, the cosmic and the human ("Introduction" 6). His technocrats of the future, he makes clear, may come from any background or race.

Wells's ideas for reducing what he viewed as surplus population, however unsound they might appear today, contain crucial differences to the Nietzschean ideas Ostrog proposed in *When the Sleeper Wakes*. Nietzsche's Zarathustra advocated exploiting the labouring class in order to create a higher race, which would supersede humanity. Wells, on the other hand, saw the educated middle-class as the hope for the future and the "People of the Abyss" as the superannuated remnants of an earlier era who would soon disappear.

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[101] Norman and Jeanne MacKenzie report that the book "had greatly impressed the Webbs, who liked his idea of "New Republicans" – an elite who could regenerate the nation" (290).

Wagar also refutes the concept that Wells saw Ostrog's views as desirable: "Ostrog's fantasies of subduing or eliminating the working class chime with nothing that Wells ever wrote, before or after, about labor".[102] Wagar concludes that "Like Griffin, the Invisible Man, he [Ostrog] is a caricature of Wells, mouthing some of Wells's thoughts about leadership and evolution, but in the last reckoning, a villain devoid of humanity" (*H.G*. 74-75). Even Carey doubts Wells's total commitment to Nietzsche: "His heroes and heroines can sound Nietzschean, and they share Nietzsche's enthusiasm for alpine glaciers and mountaineering as denoting superiority to the 'grubby little beasts down there'. Yet the avowed Nietzscheans in Wells's fiction – Edward Ponderevo or young Walsingham in Kipps – are always preposterous." (140)

Wells's view of the Nietzschean Over-Man may also have been influenced by late-nineteenth-century readings of Nietzsche which tended to emphasise Nietzsche's mental health problems and see his work as a confused mixture of strange ideas.[103] This perception was due in part to the fact that the complete works of Nietzsche did not appear in English until Levy's eighteen-volume translation of 1909-1913.[104] It is unlikely that Wells had access to complete translations of Nietzsche's work when he wrote *When the Sleeper Wakes*, though he may have gained some of his knowledge of the Nietzschean Overman from Max Nordau's *Degeneration* (1892), which contains numerous quotes from Nietzsche's work, not just *Thus Spake Zarathustra*, but *Beyond Good and Evil* and *The Gay Science*.[105] Nordau wrote a whole chapter on Nietzsche in which he interprets Nietzsche's Overman as an enemy of the development of humanity as a whole: "Nietzsche readily admits that the 'splendid beast of prey' is pernicious to the species, that he destroys and ravages; but of what consequence is the species? It exists for the sole purpose of making possible the perfect development of individual 'over-men', and of

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[102] Wagar is arguing against Bergonzi who states "it is demonstrable that Ostrog represents Wells's own developing intellectual convictions" (152).

[103] The *Pall Mall Gazette* described Nietzsche's philosophy as "[a] strange wild jumble, one that does not come to much" (1896), while Max Nordau criticised Nietzsche's works as "a succession of disconnected sallies, prose and doggerel mixed, without beginning or ending" (419).

[104] See Bowler's chapter on the "Nietzsche Vogue" in which he concludes that "Much of the early debate concerning Nietzsche and Darwin in the English-speaking world thus occurred before his views were widely or accurately known" (282).

[105] Wells was certainly aware of *Degeneration* since he refers to it in his novel *The Wonderful Visit* (1895). Wells also uses the same term as Nordau for his translation of Űbermensch, "Over-man" not "Beyond Man" or "Superman", as others used.

satisfying their most extravagant needs." (431). However, Nordau had no quarrel with the concept of the great leader per se, just not "the ego-maniac, the criminal, the robber, the slave of his maddened instincts", as he characterised Nietzsche's "overman". Instead he advocated his own concept of the Overman as "the man of richer knowledge, higher intelligence, clearer judgment, and firmer self-discipline" (472). Wells idea of an elite group of intelligent leaders is similar to Nordau's concept, but he emphatically rejected the necessity of an outstanding individual to lead the development of the human race. In *Discovery of the Future* Wells argued that great men have less influence on history than generally supposed:

> I must confess I believe that if by some juggling with space and time Julius Caesar, Napoleon, Edward IV, William the Conqueror, Lord Rosebery, and Robert Burns had all been changed at birth it would not have produced any serious dislocation of the course of destiny. I believe that these great men of ours are no more than images and symbols and instruments taken, as it were, haphazard by the incessant and consistent forces behind them. (42-3)

Wells believed that social and political factors determined future progress not one or two great men. He continued to endorse this view even in the 1930s when the rise of fascism caused him to consider Mussolini and Mosley as part of "a spotty stage in the adolescence of mankind, a spotty stage that will pass. It is the Great Man idea and method in final pathological decay" (*Experiment* 649). Wells's New Republicans were not Nietzschean supermen, but "a naturally and informally organized, educated class" (*Anticipations* 262). They were not going to be bred, but would "pick ... themselves out more and more clearly, from the shareholder, the parasitic speculator and the wretched multitudes of the Abyss" (278).

While Wells's New Republicans were sceptical of democracy, much like the Nietzschean superman, this was on the grounds of efficiency, not through any desire to set themselves up as dictators. Wells saw the voting public as being apathetic, easily manipulated by electioneers and irrational in their interests (*Anticipations* 147). He did not indulge in the elitism of early twentieth century supporters of Nietzsche such as sociologist Georges Chatterton-Hill, who in *The Philosophy of Nietzsche* (1912) emphasised the master/ slave element of Nietzsche's thought, arguing that "the slaves, the great mass of

humanity, mediocre and uninteresting, must exist as a pedestal for the monument of genius" (221).[106] Chatterton-Hill saw the only value to the development of human society as being in its potential to create "a higher race, a race of conquerors, of masters, who shall, by their works, give *meaning* to humanity" (italics in original) (221). Unlike Wells, who worked throughout his life to bring into being the World State, Chatterton- Hill argued that Nietzsche hated the State for fostering mediocrity and suppressing the development of the talented (76).

Similarly, Wells had little sympathy with the "aristocratic stock breeding vision of society" (Stone 92) that characterised Nietzschean eugenics. In *Mankind in the Making* in 1903, Wells questioned the practicality of breeding for such nebulous qualities as beauty, energy, and even health:

> It is quite conceivable that you might select and wed together all the most beautiful people in the world and find that in nine cases out of ten you had simply produced mediocre offspring or offspring below mediocrity.... These considerations should at least suffice to demonstrate the entire impracticability of Mr. Galton's … suggestions. (44, 50)

Wells was prepared to defend his view of the impracticality of eugenics to Galton himself at a meeting of the Sociological Society in 1904. He argued that Galton's method of counting the number of eminent people within a family was flawed by not taking into account social factors such as "special knowledge of the channels of professional development", while his list of desirable characteristics was too simplistic (10). Wells's conclusion was that "in the all-round result the inferior usually perish, and the average of the species rises, but not that any exceptionally favourable variations get together and reproduce. I believe that now and always the conscious selection of the best for reproduction will be impossible" (11). On the other hand, the negative eugenics of banning the unsuitable from breeding remained an important component of Wells's utopian thinking. In *A Modern Utopia* (1905), Wells spends some time elaborating the fair and humane ways in which the necessarily just government of Utopia would ensure the elimination of undesirable elements of society, starting with restrictions on breeding for those receiving a minimum wage from the government, followed by "social surgery" to deal with lunatics, criminals and

[106] Dan Stone argues that "Chatterton-Hill typified early interpretations of Nietzsche" (62).

the diseased, and finally, with a touch of glee, segregation of appropriate sections of the population to “the islands of the hopeless drunkards” and “the Island of Incurable Cheats” (101). The extent to which this is a satire on contemporary ideas is unclear, but Wells’s argument to Galton that criminals were just as likely to be exceptional people as other sections of the population suggests that he was not seriously endorsing such measures (“Discussion” 10). More likely his islands were part of *A Modern Utopia’s* ongoing debate with previous utopias.

It is clear that Wells, despite his interest in negative eugenics, did not turn eugenics into a religion. He showed no interest in breeding for a Nietzschean superman and his endorsement of negative eugenics was mainly part of a fatalistic acceptance that the “cosmic process” of evolution could not be halted or evaded. Like many of his contemporaries, he saw placing restrictions on breeding for certain sections of the population as a common-sense measure that would boost the efficiency of the state. The next section of this chapter will explore the consequences of following this line of reasoning. I look at how eugenics moved from being an idea discussed by writers of utopian fiction and social hygienists to becoming a potential or actual element of government policy, and how the dystopian fiction of the 1920s and 1930s dramatises the conflicting elements in this debate over eugenics.

5.3 Eugenics and the Scientific State

The First World War can be seen as a turning point for eugenics. Soloway describes the Great War as “a eugenics nightmare” which “allegedly destroyed the finest physical, mental and social stock in the country” (138), leading to numerous schemes to preserve and enhance the genetic heritage of the country. In October 1918, Major Leonard Darwin, Chairman of the Eugenics Society suggested that the “slaughter of the best types” in the war justified imposing wider restrictions on breeding, beyond those deemed “grossly unfit”. He recommended propaganda to encourage “the poor to limit the size of their families” while promoting “the fertility of the well-to-do” (145-6). Historian Marius Turda emphasises the nationalistic aspect of eugenics of this era, arguing that “After World War I, eugenics intensified its racial content, accentuating its ambition to reconfigure the national community according to hereditarian

programs based on the biological selection of valuable racial elements" ("Race" 6). The imbalance between the male and the female population also led to a shift in eugenic responsibility away from women chosing appropriate husbands towards more scientific methods of determining optimum heredity, such as intelligence testing. IQ tests developed by US army psychologist Robert Yerkes became popular within the general population after the First World War and as Kevles argues "gave quantitative authority to the eugenic notion of fitness" as well as increasing fears over "the heedless fecundity" of those deemed to be of low intelligence (84). The post-war decline in population in Europe also led to some radical speculation on scientific solutions to resolve the problem. J. B. S. Haldane in *Daedalus or Science and the Future* (1923) predicted the use of "ectogenesis", or embryos fertilised and grown outside the womb. Haldane saw ectogenesis as an opportunity to improve the quality of the population through artificially breeding from the best people. He predicted that a small number of superior men and women would be selected as ancestors for the next generation, leading to startling advances "in each generation in any single respect, from the increased output of first-class music to the decreased convictions for theft" (66). He also joined in the general eugenic refrain of the threat to civilization from "the greater fertility of the less desirable members of the population in almost all countries" (66-7). Haldane does not mention how he would prevent those "less desirable members of the population" from breeding in the old-fashioned way, nor how he would select for the best.

In *Icarus or the Future of Science* (1924) philosopher Bertrand Russell wrote a response to *Daedalus* in which he expressed his fears that "science will be used to promote the power of dominant groups, rather than to make men happy" (5). Eugenics was one area of scientific policy he was concerned about. He predicted the negative consequences of governments acquiring the right to sterilise undesirables: "This power will be used, at first, to diminish imbecility, a most desirable object. But probably, in time, opposition to the government will be taken to prove imbecility, so that rebels of all kinds will be sterilized" (49). Russell also feared that eugenics might be used for political ends, to "breed a subservient population convenient to rulers but incapable of initiative" (51). Although he was sceptical about the use of intelligence tests, Russell was not immune to the scaremongering of his day over differential birth rates, arguing that "government opposition to birth-control propaganda gives a biological

advantage to stupidity, since it is chiefly stupid people whom governments succeed in keeping in ignorance" (47). Despite being a widely travelled socialist, Russell was still concerned about maintaining the racial supremacy of white nations, fearing that birth control would contribute to a decline in numbers "at a time when uncivilized races are still prolific and are preserved from a high death-rate by white science" (47).

Russell's *Icarus* demonstrates the conflicting feelings present in the inter-war debate over eugenics and the adoption of scientifically-informed policies by government. Wells's proposal for a scientific elite that would make the correct decisions was proving more problematic than had been anticipated. Nevertheless there was enthusiasm for science as a potential solution for a range of social problems. Turda calls the emergence of scientism in the post-war period "a surrogate for religion in an age of increased atomisation of the social and political life and emerging totalitarianisms" (*Modernism* 14). This mixture of enthusiasm and fear over scientific progress is manifested by a new ambivalence within the utopian genre, leading to the rise of the dystopia. Richard Gerber's useful list of British utopian fantasies of the early twentieth century (in the appendix to *Utopian Fantasy* (1955)) suggests that scientific states vied with socialism and reversion to barbarism as the chief influence on futuristic speculation. Utopias or dystopias involving a scientific future include *2010* by Frederic Carrell (1914), a world where science abolishes poverty and disease; Rose Macaulay *What Not, a Prophetic Comedy* (1918), a satire on eugenics where the "Ministry of Brains" passes a "Mental Progress Act"; and *John Sagur* (1921) by the pseudonymous Nedram, in which a scientist becomes master of the world and produces happiness and prosperity (146-8). Nan Bowman Albinski in her study of women's utopias argues that "During the 1920s ... anti-utopian satires flourish as they had not since the eighteenth century" (75). She also notes that "eugenic science and politics are prominent" in a number of anti-utopian satires and dystopias written by women from 1919 through to 1944. In this section of the chapter, I focus on three examples of dystopian fiction from the inter-war years, Yevgeny Zamyatin's *We* (1924), Charlotte Haldane's *Man's World* (1926) and Aldous Huxley's *Brave New World* (1932). *We* and *Brave New World* both use satire to examine the role of eugenics in the development of the scientific state, while *Man's World* contains the most fully developed representation of day to day life in the scientific

dystopia. *Man's World* also demonstrates the swing to nationalism in the eugenics debate and explores the specific implications of eugenics for women, while the works of all three demonstrate what happens when the complete resources of the state are dedicated to the social engineering of the population.

Karl Pearson's conviction that statistical modelling could be used to make public policy finds a dark reflection in Russian writer Zamyatin's 1920s dystopia *We*, where life is led with mathematical precision according to "The Tables of Hourly Commandments". Yevgeny Zamyatin had been based in England during the First World War, and was well-versed in English literature, particularly Wells's scientific romances. He wrote *We* in 1920 while living in what he referred to as "post-revolutionary Russia".[107] Zamyatin was particularly concerned with the impact of state control on the life of its citizens, anticipating as Michael Glenny points out the combination of ideology and terror that would lead to Stalinism (17). In his dystopia, the "One State" controls every aspect of human life in the enclosed city with scientific precision. Sex is only allowed by prior arrangement, and the right to the privacy of closed blinds is sanctioned by pink coupons. D-503, the narrator, whose initial enthusiasm for the regulations of the regime provides much of the satirical humour of the book, finds it absurd that any government might allow its citizens to engage in sexual activity "[c]ompletely unscientifically, like brutes" (30). For him it seems laughable to "know horticulture, poultry culture, pisciculture ... and yet be unable to reach the last rung of this logical ladder: child culture" (30). The One State requires prospective parents to conform to what it calls Maternal and Paternal norms. For example, D-503's sexual partner, O-90 is not allowed to have a child because she is ten centimetres shorter than the Maternal Norm (22). The level of precision in the Norms of the One State also evokes the standardisation of industrial components, in line with *We*'s references to Taylorism, the scientific management system developed by Frederick Winslow Taylor in his influential book *The Principles of Scientific Management* (1911).[108] Taylor's ideas involved treating workers as synchronised components in a rationally organised machine. Zamyatin takes this idea further by extending the dehumanising efficiencies into all elements of a person's life, in particular their sex life. The

[107] *We* was first published in English translation in 1924, and was not published in its original Russian version until 1952.
[108] See Van Atta for more information on the adoption of Taylorism in the Soviet Union.

One State treats love like any other commodity, and attempts to eliminate its irrational effects. D-503 proudly proclaims: “Naturally, having subordinated Hunger ... The One State launched an offensive against the other sovereign of the universe – against Love” (37). In *Love and Eugenics*, Angelique Richardson looks at the scientific rationalisation of love by Galton in his eugenic utopia *Kantsaywhere* and concludes that “passion – an inhibitor of rational choice – was edited out of the love-plot” (85). In Zamyatin’s One State sex has been “organized” and “mathematized” by decreeing that “Every number has the right of availability, as a sexual product, to any other number” (37). Yet the suppression of passion and sexual desire is unsuccessful, as it is through sexual desire that D-503 comes to rebel against the state.

Although eugenics might not have been the primary target of Zamyatin’s satire, *We* shows clearly that applying scientific principles to elements of personal life such as sex and reproduction can have a dehumanising influence. Brett Cooke argues that "... all a writer has to do is depict a society that enforces practices significantly outside the normal range of human activity and most human characters, and the reader will feel threatened by dehumanization" (126). This process is exemplified by Zamyatin through the image of a fantasiectomy, the operation developed by the state to surgically remove the imagination. The Benefactor , the head of the One State, argues that the whole idea of heaven is a form of fantasiectomy: “Remember, in Heaven they no longer know anything of desires, of pity, of love; there you will find only the beatified ones, with fantasiectomy already performed on them” (204-5). While Zamyatin situates this commentary within an argument, developed from Dostoyevsky’s Grand Inquisitor, of freedom versus happiness, it can also be seen as asking the question whether humans would be happier without their imagination and unruly passions. Zamyatin’s representation of the lobotomised humans as “a humanoid tractor”, mindlessly ploughing through the crowd, makes it clear where he sits in the argument. However, D-503 does spend most of the novel in a state of sexually-inspired delirium and, indeed, throws away everything that he ever valued, suggesting that the argument is not as clear-cut as it first appears. As many critics have pointed out *We* is also a version of *Paradise Lost*, the temptation of Adam by Eve, and the story of humanity’s

expulsion from paradise.[109] While Zamyatin's text strongly endorses the necessity of leaving paradise, the tension between the chaos of primitive society, represented by the rebellious "mephi" who live outside the city wall and the infinitely knowable and controlled world of the One State drives the narrative forward.[110] A sense of mourning for the absurd paradise is epitomised by D-503's closing paean to the public lavatory: "There, above ground, everything was perishing, the greatest and most rational civilization in all history was crashing, while, here, through someone's irony, everything remained as it had been, in all the splendour of its beauty; the gleaming walls; the comforting murmur of water; the music also like unto water, crystal clear, its source unknown, lending beauty to digestion" (218).

In *Brave New World*, Aldous Huxley also presents a world where freedom is curtailed in favour of comfort, through a combination of eugenics, conditioning and drugs. Breeding for different skills and intelligence levels ensures that everyone is well adapted for their place in the workforce; no-one is unhappy because they are conditioned to enjoy what they do, and, besides, can take "a soma holiday", the perfect drug escape if anything gets too stressful (53). Huxley, like Wells, was in favour of some aspects of eugenics, and was particularly concerned about levels of mental health problems. Following an alarming report from the Joint Committee on Mental Deficiency in 1929, Aldous Huxley estimated that on current trends a quarter of the population of Great Britain might consist of half-wits in a century or two, leading him to advocate sterilisation ("What" 50). However, in *Brave New World*, Huxley turns eugenics from beneficial to horrific through the Bokanovsky process which industrialises human reproduction to produce scores of identikit humans from one egg. Each embryo is categorised according to its heredity qualities, then given a range of treatments which will stimulate or retard its development. So, in the Embryo Store, the Alphas are inoculated against diseases, while the Epsilons are deliberately deprived of oxygen or otherwise poisoned to keep them below par.

The prophet of *Brave New World* is not Taylor but Henry Ford. Huxley was deeply suspicious of mass production and the Fordian assembly line, seeing it as dehumanising the workforce by removing the skill of labour. He

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[109] Richard A. Gregg sees the central myth of the novel as being drawn from the Biblical Story of Adam and Eve (1988).

[110] T. R. N. Edwards asserts that Zamyatin takes the part of the devil, seeing Paradise as entropy and the devil as life-affirming energy (75).

wrote in an essay of 1931: “The machine, say its panegyrists, is a liberator. Low-level routine work, such as the machine demands from its attendants, sets the mind free.… But free to do what?” (“Sight-seeing” 75). This is indeed one of the questions addressed by the hedonistic, but ultimately vacuous world of *Brave New World*, in which Ford’s famous statement that history is bunk is taken quite literally. All traces of classical civilisation, religion, music and Shakespeare have been removed, leaving a society with no culture, living in the moment with the debased entertainment of the ‘feelies’ and games like Centrifugal Bumble-puppy.

However, the critique of *Brave New World* is undermined throughout by an element of ambivalence. In particular, the eugenically-selected and conditioned population of Huxley’s new world is contrasted with John, the Savage, a character brought up outside the controlled society of *Brave New World*, and seen as a surrogate of natural man. In a debate with the Controller, the Savage claims the right to nobility and heroism, to expose “what is mortal and unsure to all that fortune, death and danger dare” (239). Carey sees Huxley as being on the side of the savage, concluding that Huxley devised the character “to show that the savage’s decency, uprightness, contempt for mass values and love of Shakespeare are not just preferable but natural. They have the endorsement of uncorrupted Nature” (*Intellectuals* 89). However, the Savage, like D-503, is driven to destruction by his own unregulated passions. He is so badly traumatised by his upbringing as to make the abolition of family and exclusive love relationships seem almost justified. David Bradshaw argues that the Controller is “Huxley’s ideological spokesman” on the stability agenda, concluding that “we can now also recognize that *Brave New World* embodies in an absurd and distorted form ideas and opinions that Huxley framed in earnest beyond his novel’s satirical parameters” (“Huxley’s” 161, 168). Given Huxley’s fears about stability, and his interest in planning, the final sentences of the debate between the Controller and the Savage read like a regrettable necessity. “What’s the point of truth or beauty or knowledge when the anthrax bombs are popping all around you?” is a line given a new lease of life by modern terrorism. The courage of the Savage in claiming not just poetry and freedom, but all the ills of the world, including cancer, typhoid and old age, turns him into a Christ-like figure. But the Controller has the last words, saying “You’re welcome” (240) and it is hard not to agree with him.

The ambivalence over the scientific state is explored most fully in the Charlotte Haldane's *Man's World* which is so completely on the cusp between utopia and dystopia that some critics have read it as utopian. Albinski suggests that "Haldane intends Man's World to be read as an eutopia" (80), while Susan Squier argues that "the novel may have been intended, and was certainly received, as a feminist utopia" though she doubts that Haldane's original intentions can ever be reconstructed (144-5). On the other hand, Elizabeth Russell is confident that it is meant to be read as a dystopia (27). The fact that Charlotte Haldane had recently met and married the scientist J. B. S. Haldane at the time of writing the book also adds a presumption that the writer's intentions were to write a positive novel about the scientific state, as does her later work, *Motherhood and its Enemies* (1927) in which she endorses some of the ideas about the importance of women's role as mothers presented in *Man's World*. However, it is hard to reconcile the white supremacist activities of Charlotte Haldane's scientific state, which even involve developing a chemical weapon that works exclusively on black skin (64), with her background as a German Jew, passionately interested in human rights and with a personal awareness of anti-semitism.[111] Therefore, I will adopt Squier's approach of dealing with *Man's World* as a contradictory text, but argue that the conflicts in the text go beyond Haldane's personal difficulties with reconciling feminism and scientific discourse, and relate more to her growing uneasiness over scientism and its incursions into areas of personal life.

The opening of *Man's World* reads much like a standard utopia since it deals with the establishment of the scientific state in purely uncritical terms. The state is introduced through a tribute to its founder, the visionary Mensch who "accurately foresaw the scientist, not as the perverter nor the destroyer of mankind, but as the new director, the inevitable successor to the priest and the politician" (4). The discovery of the means to determine the sex of babies prior to birth is represented positively as the great breakthrough that makes the rule of the scientific state possible through its provision of an unlimited supply of "Man Power" (36) and its resolution of the "surplus women" problem. Haldane proposed similar ideas on the benefits of gender determination in an article she

[111] See Haldane's *Truth Will Out* (1949) which opens with a discussion of the impact of the Dreyfus affair on her childhood. She claims that the menace of anti-semitism, and exposure to feminism were the largest influences on her mind when she was growing up (6).

wrote on the subject for the *Daily Express* in 1924, suggesting that the birth of more boys than girls would benefit Britian's colonial status and ensure that any woman could become a mother.[112] Squier comprehensively identifies the problems with Haldane's stance from an equality and diversity viewpoint: "These meliorist predictions ignore the links between gender and war, the implicit racism in the construction of the colonizing project, and the phallocentrism of the assumption that only women who are legally married may become mothers and that unmarried women are problematic because 'surplus'"(140). Haldane's views in this article, along with the pro-natalist argument of her later book *Motherhood and its enemies* (1927) lend weight to the interpretation that she considered the pre-natal gender determination aspect of *Man's World* as utopian.

However, once Haldane begins to introduce her protagonists, it gradually becomes clear that the benefits of the state cannot be taken at face value. She is not writing a standard utopia, but a dialogic work which, true to the dystopian mode, contains opposition to the dominant values enforced by the state. The difference is that, unlike Huxley and Zamyatin, there is little satire or irony in the representation of the state, and where it is present, it is very subtle. Haldane's critique is contained not in the narrative voice, but in the thoughts and actions of the characters, specifically her two main protagonists, the brother and sister Christopher and Nicolette, who decide to rebel against the stereotypical gender divisions of the state. In the scientific state of *Man's World*, women have three possible roles which they have to choose between once they reach puberty: professional motherhood, neuters (career women) or entertainers (artists/ courtesans). This arrangement is represented as being for the benefit of women, as they no longer need to play all these different roles, leaving mothers free to "produce and rear children" (59). Both the neuters and the entertainers are sterilised to prevent unplanned births, while the mothers take on the role of propagating the race and making themselves into "perfect vessels" (51) or as various characters in the books disconcertingly call them, "mother pots". They are sent to mother settlements where "the mothers of the

[112] For a summary of the article see Squier (140). Bertrand Russell also alludes to the idea of gender determination in *Icarus* (1924): "The study of heredity may in time make eugenics an exact science, and perhaps we shall in a later age be able to determine at will the sex of our children. This would probably lead to an excess of males, involving a complete change in family institutions" (10).

future might be apprenticed to learn the elements of their craft" (53) and then mated with the appropriate partner. Nicolette is not ready to be a mother when the time comes to make the choice of career, while Christopher is unhappy fitting in with the masculine stereotypes of the society, so they form a plan to challenge the right of the state to enforce the choice between mating or sterility. On this basis, the story conforms to a familiar dystopian pattern. The characters rebel against the status quo, and begin to understand the problems of the existing social set-up. They also find out that the state is not as benevolent as it seems, when they discover the fate of the community of Exton which was ruthlessly eradicated for failing to prevent an epidemic.

However, Haldane's dystopian utopia continues to resist simple interpretation. For example, Antonia, the mother to Christopher and Nicolette, carries out a passive resistance to the requirement to produce another son:

> She carried on all those exercises prescribed to develop the masculinity of the growing embryo listlessly. She was not disobedient but rather unobedient.... She cheated even in the matters of her diet and her exercises. It was a negative rebellion ... but at a time when sex was still a matter more or less of experiment and the most stringent precautions were necessary in order to successfully to coerce nature, it had its effect. (86)

However, Antonia's "negative rebellion" is represented as irresponsible rather than as a critique of state control of reproduction. The whole process of gender selection seems to require an intense amount of discipline, which enhances women's role and puts them in control of what might otherwise be seen as purely masculine scientific procedure controlling the female body. As such, the women of the book mainly do not want lose their primary role in breeding and rearing the next generation. They fear being superseded by "ectogenesis" and so collude in maintaining their position in "Man's World" Even Emmeline, Nicolette's neuter aunt, who has sacrificed her chance of children for her career is insistent that the state's sterilisation policy is right:

> Either you become a mother or you must be immunized. It is the only safeguard that must be taken for the future of the race. As soon as you abandoned it, children would be born haphazard everywhere, would be bred by the pure and the impure; ... it would simply lead to the dirty, bestial breeding of the past again. The race would be doomed. (127-8)

Nicolette's rebellion is also undermined by J. B. S. Haldane, or his surrogate within the book, Bruce Wayland. Bruce is a charismatic embodiment of scientific masculinity, who like J. B. S. Haldane himself is so committed to science that he will carry out scientific experiments on his own body. Nicolette falls in love with him, and allows Bruce to turn her act of rebellion into another experiment, so that she can be reincorporated into the scientific state. Bruce however, has no illusions about what the state is doing to manipulate women: "If you invent a biological religion, as we had to do for them, and call it vocational motherhood, heretics will be as surely attacked by the female inquisitions as protestants were by the catholic one" (200). For him though, and for Nicolette under his influence, the restrictions are worthwhile in their quest for "a self-conscious race" (299).

If Nicolette's rebellion is ultimately represented as misguided, the interpretation of Christopher's position is less clear-cut. He is the most thoroughly conceived character in the book, though not as Elizabeth Russell maintains the only person who receives any characterisation at all (18). He and Wayland are opposites, not just in their fight for the affection of Nicolette, but in the struggle between rationality and emotionalism. Like Zamyatin, Christopher does not care for a world where everything is scientifically measured: "You people, who go on noting and measuring, measuring and noting, how often do you dare try to interpret?" (140). Christopher is not alone in this position. The community of Isola, where Nicolette's rejected suitor comes from, is mocked for turning out "the world's extremely valuable mediocrities according to plan" (132-3). In what could easily be a parody of eugenics, Isola is describes as being founded "by a group of people interested solely in maintaining the highest possible temporary average." Their mating programme aimed for consistency not genius resulting in the community becoming "famous as the source of brilliant second-raters" (132-3). Haldane, despite her desire to promote motherhood, was not in favour of eugenics, arguing: "One would require a certificate of psychological purity even in the case of certain scientists before one would entrust them with so dangerous a profession as that of human geneticist" (qtd. in Squier 153). Another oppositional character, the Jewish artist Arcous Weil, also criticises the scientific approach to life promoted by the state: "Better and worse, a little, more.... Abolish them as applied to achievement, and you lose a mean, a standard. You get mediocrities at once" (155). Weil endorses Christopher's view of the unethical nature of the state: "The leaders of

to-day are treating the people as if they were Versuchtieren, and the earth one great laboratory" (158). On the other hand, he appreciates the utopian results: "Art flourishes, science rules. War and epidemics have vanished, the attitude towards sickness transforms pain into pleasure; we can remain young as long as we like, and a generation lives and dies together" (158). For Christopher, though, the cost of utopia is too high. Individuality has been lost, comfort has taken the place of striving, and non-conformity is impossible because any form of deviation from the interests of the state is pathologised and cured: "science takes him into her loathsome workshops, where she repairs him according to the way he ought to go, not the way he wants to" (159-60). In effect, Christopher's rebellion takes the form of rejecting *Man's World's* equivalent of the fantasiectomy – hypnosis or drugs to cure him of his supposed abnormality. Instead of allowing his mind to be tampered with to fit in with the state, Christopher chooses to kill himself by flying his plane without oxygen, soaring above the world in a state of mystical transcendence, before plunging to his death.

The fate of Christopher might suggest that his criticism of the scientific state is invalid. Bruce Wayland pronounces the scientific verdict on him, describing him as "intermediate sexually" as a result of Antonia's failure to observe the proper procedures for having a son (297). Squier argues that in *Motherhood* Haldane blames the "intersex woman" for undermining women's position by failing to have children. But in *Man's World*, the danger of Christopher's intersex position comes not from his failure to breed, but from the autonomy it gives him in relation to the state and its aims: "It was not the homosexual body they dreaded, but the homosexual soul; the soul in which the seeds of 'love' were doomed to infertility, the soul that was sufficient unto itself" (*Man's World* 282). Haldane views Christopher as a tragic failure, much like one of Wells's doomed victims of evolution, concluding, as Wayland puts it, that "there will always be Christophers, and they will always suffer" (299). However, for Wayland, the goal of a "self-conscious race" is more important than the rights of the individual (299). Wayland's commitment to this vision and the long "experiment begun by the race thousands of years ago" (299) makes *Man's World* utopian despite its manipulative politics. But the book ends with Nicolette weeping for Christopher, even as Wayland drives her along the "shining road" leading "back to the future" (299). The suicide of Christopher represents the

price that is being paid for this utopia, and maintains the ambiguity of the tone. Haldane recognises the inhumanity of the scientific state, but represents it as worthwhile for the future of the human race nonetheless. Haldane's interest in eugenics, unlike that of Wells, is more concerned with overcoming gender ratio imbalances and improving maternal care, rather than eliminating undesirable characteristics. The frequent references to intelligence in the book suggest the contemporary interest in testing intelligence, while Mensch, the genius who founds the scientific state, evokes not just everyman and humanity, but the Űbermensch, or the Nietzschean Over-man. While Wayland, the experimental scientist is sympathetically drawn, the technocratic elite who manipulate society for what they believe to be the good of humanity, are ultimately chilling. Judith Adamson, Haldane's biographer, suggests that "[t]he novel reflects the extent to which Charlotte's fascination with science had already been undercut by a sensible suspicion of the potentially dangerous uses to which it might be put" (54).

In the last analysis, whether *Man's World* is classified as utopian or dystopian is of questionable significance. Its value is in Haldane's ability to dramatise the appeal of the eugenically controlled scientific state, alongside its quite considerable disadvantages. Haldane is more anti-utopian than either Zamyatin or Huxley in the sense that *Man's World* represents a state based solely on utopian ideas. While Zamyatin and Huxley mostly focus on tendencies that they dislike within existing societies, the Communism of post-revolutionary Russia or the consumerism of capitalist America, Haldane is imagining the scientific ideas and values of J. B. S. Haldane and his contemporaries put into practice. All three see benefits as well as drawbacks to the idea of a world run on scientific lines, but in spite of this, also capture some of the problems with a society where individual rights are subject to the demands of the state. In the next section, I look at how elements of dehumanisation explored in *We, Brave New World* and *Man's World* are pushed to their logical conclusion in *Swastika Night* (1937), in a future Nazi world where women are viewed as animals with no function apart from breeding. I argue that in the face of the Nazi nationalist, racial and gender prejudices, the dystopian aspects of eugenics and the risks for women from an ideology of enforced motherhood become far more evident, causing the idea of scientific adaptation of humans in the name of progress to lose much of its appeal. However, despite the evident drawbacks to selective

breeding, the hopes of evolution making humans more fit for peaceful co-existence in a future utopian world remained as strong as ever.

5.4 *Swastika Night* and Nazi Eugenics

In the aftermath of the First World War, G.K. Chesterton described Germany disapprovingly as "the very land of scientific culture", designating the former Prussia as "the model State of all those more rationalist moralists who saw in science the ordered salvation of society" (113). However, as literary critic Geoffrey Winthrop-Young argues, the early historians of the Second World War preferred to emphasise the anti-rational forces at work in the Third Reich, in order to make a clear distinction between Germany and the Allies (892).[113] In Winthrop-Young's analysis of alternate history versions of Nazism, he concurred with more recent historians, such as Jeffrey Herf, that the German Right combined cultural conservatism with advanced technology to produce a reactionary form of modernism that used science to promote nationalism (889).[114] Historian Robert N. Proctor argues that although the Nazis were perceived as being hostile to science, there were certain sciences that flourished under the Nazi regime, including genetics, anthropology and various forms of racial sciences (so called Rassenhygiene, a racially inflected version of eugenics) (5). However, as Michael Burleigh and Wolfgang Wippermann point out, Hitler replaced scientific terminology with more emotive concepts such as "maintenance of the purity of the blood" (39).

In *Swastika Night*, Katharine Burdekin presents a pseudo-medieval society that has largely turned away from science. Instead her future world focuses on two elements of Nazi ideology, nationalism, based on German blood, and gender discrimination. In doing so, the novel reflects how science and universal progress moved away from the centre of the eugenic discourse to

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[113] See for example Hugh Trevor-Roper's *The Last Days of Hitler* (1947) and William Shirer's *Rise and Fall of the Third Reich* (1960).

[114] Herf argued that "Although technology exerted a fascination for fascist intellectuals all over Europe, it was only in Germany that it became part of the national identity. The unique combination of industrial development and a weak liberal tradition was the social background for reactionary modernism" (10). Burleigh and Wippermann interrogate this dichotomy further to conclude that the Third Reich was not a modernising regime, but a regressive one based on racial ideology (304-6). In particular, they reject the theory propounded by Götz Aly, Susanne Heim and Karl-Heinz Roth that the 'Final Solution' was about economic modernisation (18-19). For further discussion of modernity and modernisation in relation to the Nazi state see also Baranowski and Roseman.

be replaced by specifically nationalist concerns over the quality and quantity of the population and their use in the competitive arena of warfare. Turda talks about what he calls "the biologisation of national belonging" in the Inter-War period which resulted in eugenic action to disenfranchise those that were not perceived as meeting the biological standards of the nation (*Modernism* 67). In Burdekin's Nazi state, the female half of the population is excluded from citizenship on the grounds of their gender. Whereas in Haldane's *Man's World*, women were mated with a view to racial improvement and played an important role in bringing up the next generation, in *Swastika Night*, women are treated like animals and have all male children removed from them after eighteen months.

Written in 1937 under the pseudonym of Murray Constantine, Burdekin's *Swastika Night* seems prescient of the Nazi atrocities that would later come to light. In her future world, set over 700 years into the reign of Our Lord Hitler, the Jews have been exterminated while women have been turned from human beings to "speaking animals" (73), through coercive practices such as close confinement, shaved heads, and uniform clothing, not dissimilar to the tactics used to dehumanise Jews in the Nazi death camps. Daphne Patai argues that "Burdekin's special insight was to join the various elements of Nazi policy into one ideological whole. She saw that it is but a small step from the male apotheosis of women as mothers to their degradation to mere breeding animals" ("Introduction" xi). Carlo Pagetti adds that Burdekin's account "also brings out a deep connection, in the larger perspective of the narration, between totalitarianism and male chauvinism, between the establishment of a strong state based on theocratic principles and the inevitable reduction of the female component to a totally subordinate role" (361). The racism and anti-semitism of Nazi ideology was clearly visible in Hitler's *Mein Kampf* (1925-6), which was published in abridged form in the UK in 1933, and during the 1930s many intellectuals and writers in the UK, including Charlotte Haldane were involved with opposition to the Nazi regime.[115] Burdekin herself was a keen observer of events in Germany, as can be seen by her references to Roehm and Barth, who appear alongside Lenin and Stalin as the four arch-fiends in her future religion

[115] In her autobiography *Truth Will Out* (1949) Charlotte Haldane writes: "I gave up my literary career, after 1936, to become an active anti-Nazi" (1).

of the Holy Hitler.[116] Burdekin also gave Germany and German values a central role in *The End of this Day's Business,* a companion piece to *Swastika Night* in which women rule over men.[117]

Patai suggests that "Hitler's rise to power apparently helped crystallise in [Burdekin's] mind the dangers of conventional notions of masculinity" (x). The image of masculinity promulgated by Burdekin's future Nazi State requires that women be submissive and have no possibility of undermining men's "sense of manly dignity" (71) by rejecting their sexual advances. Women's subordinate position is turned into an ideology by the fictional Rupprecht Von Wied, who argued that "women were not part of the human race at all but a kind of ape" (79) and "that it was the wickedest possible folly to allow an animal (for women were nothing more than that) to have complete control over human beings at their tenderest and most impressionable period, their infancy" (81). Patai points out the similarity of Von Wied's ideas to those of the Austrian philosopher Otto Weininger, whose book *Sex and Character* (1903) described women as passive and immeasurably inferior to men ("Introduction" vii-viii). Burdekin argues that the extremes of masculinity fostered by fascism are incompatible with women retaining any sense of self-respect or ability to resist male construction of their identity. In *Mein Kampf* Hitler emphasises strength and Nietzschean will-power in his vision of Aryan masculinity: "a man of little scientific education but physically healthy, with a good firm character, imbued with the joy of determination and will-power, is more valuable for the national community than a clever weakling" (371). Women's role, on the other hand, is reduced to a responsibility to breed: "The goal of female education must invariably be the future mother" (377).

The other element of Nazi ideology that Burdekin refutes is the nationalism of German eugenics. The Nazi regime took the task of maintaining the German population very seriously. Himmler set up the Lebensborn organisation in 1936 to help the mothers of future Germans receive appropriate care and urged members of the SS to father children with racially acceptable

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[116] Ernst Roehm was a former friend of Hitler's who was executed in 1934. Burdekin also refers to him in *The End of This Day's Business*. Karl Barth led Church opposition to Hitler's regime.
[117] According to Patai, *The End of This Day's Business* was written around the same time as *Swastika Night* in 1935. It was not published until 1989 ("Foreword" xx)

women (Kevles 117).[118] In Burdekin's future world of *Swastika Night* maintaining the level of the German population is also a key concern. The Aryan elite of Knights and Nazis are under pressure to keep up the birth-rate and Nazis are punished if they have not had any children by the age of thirty (22). More importantly, as the book opens, the German race is threatened with extinction because no female babies are being born. Suddenly the devalued section of the population gain importance, leading one of the Knights to accidentally tell the women to bear daughters rather than sons (13). This reversal of the official position is so subversive that the Knight has to pretend that the women misheard him, as the whole repressive system is based on women being unaware of their power: "If a woman could rejoice publicly in the birth of a girl, Hitlerdom would start to crumble" (14).

Burdekin's critique of gender relations goes beyond the specifics of the Nazi regime, though, to look at how women have colluded in their subjection:

> If men want them to be beautiful they will be beautiful. If men want them to have an appearance of perfect freedom, even an appearance of masculine power, they will develop a simulacrum of those things. But what men cannot do, never have been able to do, is to stop this blind submission and cause the women to ignore them and disobey them. It's the tragedy of the human race. (70)

Like Gilman, Burdekin was interested in what women would be without the influence of men. She believed there had never been a time when women could be themselves, rather than a reflection of what men made them. In *The End of This Day's Business* women create their own society, but it is still a repressive one, shaped by the need to keep men unaware that they were once the dominant gender. Women are secretive and aloof from men, educated for the responsibility of running society. All the former history and literature has been translated into Latin, which only the women can read. Men are treated like boys, given time to play aggressive games, drink and have sex with any women who are interested in them. But they have no political power, and are only employed to do the more physical jobs suited to their greater strength. The women are

[118] For more information on the eugenic policies of the Lebensborn homes see Schmitz-Köster. Lebensborn was also involved in the programme to re-Germanise children from the occupied Eastern European territories, deemed to be of good Aryan stock. For further information see Mühlhäuser and Morawetz.

terrified that if men regain power they risk “a return to male violence and unreasonableness” (*Business* 143). Burdekin’s role reversal shows men being as anxious to gain favours from women as women formerly were from men. Grania, who disobeys the dictates of society by telling her son the truth about men’s position, recognises the role of social conditioning in determining gender roles: “You can change men or you can change women, almost unrecognizably, by sex, shame and starvation of their psyches, but human needs are always the same. The human need for the self-esteem necessary for full mental and moral development never changes, any more than the animal need for enough food to develop the physical body as fully as possible” (48).

However, Burdekin also sees a fundamental biological difference between men and women. Patai points out that “Burdekin clearly assumes a direct connection between male biology and violent behaviour” while associating “reason and discipline” with women (“Afterword” 181-2). In Burdekin’s earlier novel, *Proud Man* (1934), an asexual ethnographic researcher from the future explains female subjection as resulting from male jealousy over women’s greater biological importance through their ability to have children. He/she predicts that “If women retain their biological importance, and become pleased with themselves from birth, and learn to associate power with the womb instead of with the phallus, a dominance of females over males is not only possible but likely” (31). However, the visitor recognises that this would not resolve the problems of the human race, but merely reverse privilege in favour of women. Instead, he/ she sources hope in the rise in homosexual groups of men and women whose dual nature “physically of one sex and in behaviour of another” were “groping, in a very clumsy and childish way, towards a more human state of existence” (38). Elizabeth English argues that Burdekin sees “a correlation between inverted identities and the promise of utopia” (95) and that “for Burdekin the invert is an agitator or revolutionary, pushing forward the social, political, and even biological evolution of the species” (104). English traces the roots of Burdekin’s argument to the works of early twentieth century sexologists such as Havelock Ellis and in particular Edward Carpenter. Carpenter argued that the invert represented a higher stage of evolution and that far from being sterile was able to originate transformative ideas (105). Like Christopher in *Man’s World*, the invert is “a venerated figure elevated above the throng of (heterosexual) humanity by his or her heterodox nature, possessed of

an acute understanding of society and the ability to enact social revolution" (105). For Burdekin, the route to lasting peace between the two genders is either science or evolution. Science, such as J. B. S. Haldane's ectogenesis, could mitigate the biological importance of women, which for Burdekin, unlike Charlotte Haldane, represented a positive development: "In this case the root jealousy of the male would disappear, and there would be nothing to prevent a lasting peace between the sexes" (*Proud Man* 31). Alternatively, evolution could lead to a future society that has evolved beyond the need for sex and gender, as depicted in *Proud Man*, through a perfect fusion of the two sexes. Leonora, a woman who befriends the alien visitor, baulks at the idea of a sexless future, complaining that "without sex there is no passion or feeling of any kind. No evil, but no good either." Burdekin's future observer responds that this fear, while natural is not a reason to reject evolution: "Naturally, being sexual, *you* don't want to be without sex. But being reasonable, you should not mind evolution" (192).

Man's World promoted a racist white supremacist society on the grounds of higher efficiency and racial evolution. In *Swastika Night*, Germans believe themselves superior to all nations, including other white Europeans, and develop a mythology around the Aryan archetype and Hitler as its representative. Haldane contested the scientific rationalism of the state through the character of Christopher, who concludes that the religious life is "the individual's sole effective protest against the community. Only in the name of his god can man truly rebel against the law of man" (84). Christopher's religious revolt was a source of instability in the scientific state, because science has become a religion. However, Burdekin recognises that the Nazis have taken this a step further by discarding the scientific trappings of movements like eugenics, and turning them back into articles of faith. So, the religion of Hitler has its Creed and holy relics in a parody of Christianity, but it is also a conscious means of controlling the Germans and their empire. Alfred, the English protagonist of *Swastika Night*, although on pilgrimage to the Holy Places of Germany, is already a sceptic. He explains to Hermann, his German friend that: "Your Empire is held together on the mind side of it by Hitlerism. If that goes, if people no longer believe Hitler is God, you have nothing left but armed force" (26). He also expresses a key point for Burdekin, that if the German Knights believe themselves to be racially superior, "by blood", rather than by their own

ability, then none of them can be real men, because their position is based on that privilege and they do not have to take responsibility for their actions. Blood privilege also means that in Burdekin's Nazi state, eugenics, as such, is no longer required as those who are the wrong gender or the wrong nationality are automatically stigmatised in a process that replaces scientific justification with religion. Turda argues that "eugenicists reinstated the sacred nationalist connection between identity and territory" as a result of the rearrangement of political boundaries after the First World War (*Modernism* 69). Eugenics became a key to national rejuvenation, through public health measures and a protectionist approach to the nation's genetic stock. However, Burdekin also portrays a different type of nationalism, based on geographical distinctiveness that she sees as more positive. In *The End of This Day's Business*, Grania appeals to her friends Anna's German spirit to help her campaign to liberate men:

> But what *is* a nation? It must be the land itself.... You have the power of this land in you, you have the vitality, the tremendous concentration, the spiritual strength and hardness of a German person. You can use it for the safety and stagnation and injustice and lovelessness of Germany and the world; or you can use it for courage, Anna, for growth, for change, for love, and for a better life. (152)

Likewise, Burdekin uses Stonehenge as a symbol of Englishness in both *Swastika Night* and *The End of This Day's Business*. Alfred, whose name evokes the early English king, Alfred the Great, is attracted to the ancient stones of Stonehenge, and hides the book which reveals the secret that Hitler is not really a god within a dugout near Stonehenge. It might look like Burdekin is replacing biological determinism with geographical determinism, but she is making a wider point about individuality, and being true to what you are. Once Alfred learns the truth about the subjugation of women, he works out that "Everything that is something must want to be itself before every other form of life" (107). So women must want to be women and believe themselves superior, and men likewise. For Burdekin, the route to good gender relations and an improved world is though pride in what you are, or "soul-power", which would prevent any section of the population accepting an inferior position.

In the end, despite its grim depiction of a Nazi world, Burdekin's work is optimistic. She sees hope for change in Alfred's understanding of the secret

history of his world, and in the preservation of knowledge represented by the Knight's book.[119] Similarly in *The End of This Day's Business*, although Grania is put to death her ideas have been passed onto Anna, and are likely to live on. Burdekin is showing that a state based on either male or female privilege will not succeed. For her, the goal of evolution is not breeding supermen or improving one race over another, but moving towards peaceful co-existence of men and women. Fundamentally Burdekin's analysis is not very different from that of Charlotte Perkins Gilman. Although Burdekin's work is more hard-hitting than Gilman's, as it goes beyond "the condition of woman located within the idealization of an Amazonian society" (Pagetti 361), Burdekin echoes many of Gilman's criticisms of war and women's collusion in their own oppression voiced in *With Her in Ourland*. Burdekin, like Gilman, also uses reproduction as a metaphor for women's position of biological power. Where Gilman's women miraculously provide parthenogenetic daughters, Burdekin's women decide not to replicate their debased condition by no longer bearing female children. In both cases, they are asserting women's ability to unilaterally control what happens to their bodies, and reclaim power from men. Burdekin still sees evolution as a positive route to improve gender relations. She rejects the androcentric values of Fascist societies and their nationalist-oriented eugenics, in favour of a vision of evolution as moving towards an integration of the genders to produce what is described in *Proud Man* as a fully human consciousness.

5.5 Conclusion

The dystopian fiction of the early twentieth century provides a far more complex treatment of eugenics than simply warning against its dystopian implications. For Wells, eugenics was mainly an aid to human evolution, helping along the inevitable extinction of certain unviable types. But, through the character of Ostrog, he warned against science without ethics and the capitalist exploitation of the masses for profit. Wells also saw the danger of the cult of the Nietzschean superman and disputed the value of trying to breed humans for

[119] Rosenfeld argues that Burdekin's portrayal of the good German Knight, Hess "represented the belief, still held by many Britons in the 1937, that Germany might still rid itself of the Nazi diseases without bloodshed" (37).

specific qualities, preferring to imagine a world run by a scientific elite drawn from all classes and maintaining some of the energy of humankind's primitive forebears. For Zamyatin and Huxley, writing after the First World War, eugenics had become less hypothetical, but it was the Fordism or Taylorism of America, the industrialisation of man into the human components of the automated world, which concerned them most. Haldane, on the other hand, embraced the idea of the Wellsian scientific utopia with professional mothers in charge of gender determination. However, her exploration of the reality of this state for those who did not conform reveals the true human cost of subordinating personal interests to a state run in the name of human progress. Even so, in all of them, there is a yearning toward control and scientific organisation, represented by such figures as Ostrog, Mensch, the Benefactor and the Controller, and an ambivalence that reveals the attraction that programmes like eugenics held for scientific thinkers of the early twentieth century. Only Zamyatin and Haldane criticise the negative eugenics of sterilisation, through the illicit pregnancies of O-90 and Nicolette, showing these policies as invasive and a deprivation of human rights. In *Swastika Night*, written in response to the rise of Nazism at a time when eugenics was being used to define national boundaries and determine citizenship and human rights, Burdekin critiques an ideology that bases power on "blood" and grounds masculinity in physical strength and aggression. Whereas Haldane accepted state eugenic control of women's reproductive options as a means of maintaining women's central role in improving the human race, Burdekin showed the consequences of treating women merely as a resource for breeding the next generation of men. However, Burdekin also rejected the idea of women reversing the power relationship through dominance over men, and anticipated a time when gender would no longer be an issue and human beings would incorporate the best characteristics of both men and women.

Gary Morson's definition of the difference between utopia and anti-utopia is useful when considering the representation of eugenics in dystopian fiction. Morson wrote that "Utopia claims to know, anti-utopia asks why think we know" (121). Even where eugenic measures are accepted as necessary to preserve or improve the race, or simply to provide stability, dystopian fiction asks more questions about eugenics than utopian fiction ever did and exposes problems that even the opponents of eugenics do not always consider. Dystopian fiction

charts the intellectual history of the concept of eugenics in ways that are not always clear from contemporary debates by portraying the human consequences of eugenic concepts. The early-twentieth-century dystopia moves from the threat of the Nietzschean superman to demonstrating the bankruptcy of master/ slave morality, from the technophilia of Wells's megacity and Haldane's scientific experimenters to reassertion of the individual's right to love and private preference. There is a general antipathy to standardisation of human life, but a continued interest in evolution and human progress, thereby retaining an element of utopianism even within the most dystopian of situations.

6 Eugenics in Eden: the Rise of the Post-War Ecotopia

The decades following the Second World War saw the emergence of a new type of scientific utopianism, based on ecology and environmentally-friendly technology.[120] These "ecotopias" as they became known, a term derived from the title of Ernest Callenbach's 1975 novel *Ecotopia*, were not as hostile to eugenics as might have been expected given the atrocities of Nazi eugenics during the Second World War. As discussed in the previous chapter, the inter-war years saw an exploration of the dystopian aspects of utopianism and a growing awareness that the utopias science might create threatened freedom, individuality and basic human rights. Indeed, both Nazi Germany and Stalin's Russia could be seen as the end result of utopian ideas being put into practice.[121] However, the events of the war also added urgency to the question of how to make a better world, spawning new forms of utopianism in the post-war era, such as the Universal Declaration of Human Rights in 1948. Kumar argues that for all the talk of the death of utopia in the twentieth century, the utopia "launched a vigorous challenge" to the dominance of dystopias in the second half of the twentieth century (387-8), with the ecotopia retaining "the utopian vision and intensity in its conviction that a society organized according to ecological principles ... offered the best possible life for all its members" (405).[122] At the same time, eugenics remained government policy in many countries despite the negative connotations of the term, with eugenic sterilisation continuing in some states of the USA until the 1960s, and in Nordic countries such as Sweden up until the 1970s.

In this chapter I focus on three texts which illustrate the new environmental utopianism of the decades following the Second World War, while at the same time indicating the persistence of eugenics in post-war utopian fiction. The earliest of these is *Walden Two*, the utopia of behaviourist

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[120] According to SF writer and critic Brian Stableford, the term "ecology" was used by Thoreau in 1858, seven year before being defined as a branch of biology by Ernst Haeckel (259).

[121] Jay Winter describes Stalin and Hitler as major utopians, going on to comment that "the term 'utopia' is now thoroughly discredited by contamination through association with the crimes of the great killers of the twentieth century" (72).

[122] Stableford also saw elements of ecotopian desire in the dystopias of the 1940s, such as George Orwell's *Nineteen Eighty-Four* (1949) which, he argues, "retains an element of nostalgic Nature-worship in its depiction of Winston Smith's brief escape to an enclave of rural harmony " (269). Kenneth Keniston, writing in 1960, was less positive about post-war utopian fiction, arguing that "utopias have become warnings, not beacons" due to "a more general 'loss of faith' in the West" (182).

B. F. Skinner, published shortly after the Second World War in 1948, which demonstrates the transition from the scientific utopia of the inter-war years to a more environmentally-friendly, small-scale utopia, set in the real world of contemporary rural America. I argue that despite its environmental credentials, fear of further world-scale conflict leads Skinner to enforce co-operation through behaviourist techniques not dissimilar to those of Huxley's *Brave New World* and to continue to endorse the concept of eugenics. Eugenics also remains an important element in Aldous Huxley's *Island* (1962), a utopian novel set on an imaginary island in the Pacific Ocean. Pala is the site of an experiment to build the perfect society by combining Western science with Eastern spirituality, and developing new models for family life and self-realisation through sexual freedom and psychedelic drugs. However, this utopia with an ecological conscience is still haunted by some of Huxley's earlier tropes through the viewpoint of its protagonist Will Farnaby, who sees the mass of humanity as swarming maggots, pointlessly addicted to TV (*Island* 109-10). I argue that fear of overpopulation and the influence of popular culture led Huxley to endorse eugenics and seek to use meditation as a new kind of behaviourial control. Ernest Callenbach, by contrast, explicitly rules out any eugenic agenda in *Ecotopia* (1975), a utopia based on an ecologically sustainable state in the Pacific North West of the United States. Eugenics for him means cloning, genetic manipulation and breeding advanced humans, and has no role in his steady-state society where even science has an ecological niche. Instead Callenbach, in an echo of feminist utopianism, places sexual selection firmly in the hands of women, who also have complete access to contraception and abortion, primary instruments in the state's official policy of population reduction.

The argument of this chapter is that, contrary to expectation, eugenics and other scientific techniques for managing human behaviour remained essential to the imagining of utopia in the decades immediately after the Second World War, and even into the 1970s when *Ecotopia* was written. The increasing environmental consciousness of utopian fiction offered a new way of expressing hopes for the development of human society which moved utopianism away from the discredited totalitarian projects of the pre-war years, while the partnership with the natural environment and the science of ecology gave a new impetus for considering human development on a species level. I argue that

ecologically-inspired utopianism was particularly receptive to some of the concerns of eugenics, such as population control and elimination of defective genes, as these ideas fitted in with this new version of species survival, centred on the environment. I demonstrate, as well, that even within these apparently natural paradises there remains the necessity of behind-the-scenes manipulation of human nature through eugenics or behavioural conditioning. The next section of this chapter provides context for these arguments. Firstly, I examine the evidence for the persistence of eugenics after the Second World War and then consider the rise of environmentalism and its impact on the idea of the ecological utopia. This discussion will be supported by detailed readings of *Walden Two*, *Island* and *Ecotopia* in subsequent sections.

6.1 Eugenics and Environmentalism after the Second World War

The Second World War is generally seen as a watershed for eugenics; the point at which it was no longer viable to profess support for eugenic policies. Kevles shows that the backlash to the mainstream eugenics of sterilisation had already begun before the revelation of the atrocities of Nazi eugenic policies (118). Soloway maintains a similar position, arguing that “Even before the war ... the growing doubts about isolating the hereditary components of intelligence or other human characteristics from the environmental, had already made it extremely difficult to spread the eugenic gospel very widely” (336), while British eugenicists’ hopes of using fears of declining populations to keep eugenics on the agenda were thwarted by the post-war baby boom (349). Soloway attributes the “[f]ailure of the eugenic dream” to the difficulties that British eugenicists faced in distancing themselves from what Blacker, general secretary of the Eugenics Society 1931-1952, described as “the perverted ‘Nietzschean eugenics’ of the Third Reich” (350). Historian of eugenics Pauline Mazumdar likewise contends that the eugenics in Britain declined after the Second World War, killed off by the break-down of the British class system under the new welfare state, stating that: “The loss of the old clarity of the class dimension, in public opinion, if not in any other way, meant the end of the British eugenics movement” (255). Kevles sees a similar decline in the credibility of eugenics in the US, reporting that “Well before Nuremberg, the reports from Germany had joined with the scientific, the political, and the religious opposition to turn the

tide against eugenic sterilization.... Enforcement of United States sterilization laws plummeted sharply in the early forties and was minuscule by 1950" (169).

However, the German sociologist Stefan Kühl has shown the extent to which eugenics continued to survive as both a science and a political movement in the years between the end of the Second World War and the 1960s in both Europe and the US. In a new edition of his book *For the Betterment of the Race*, translated into English in 2013, Kühl argues that the view that Nazi Germany was the only nation to practise racist eugenics, that is eugenics "primarily concerned with the genetic improvement of a particular group defined by race" (3), underestimates the support Nazi racist policies received within the international eugenics community. Kühl also disagrees with Kevles that the more racist extremes of eugenics were seen as unscientific, arguing "that it was precisely the race-oriented eugenicists who ... in the 1920s and 1930s attempted to save the claim of eugenics as true science by intensifying race research" (3). Kühl's research shows that eugenicists were so embedded in the scientific community that many of the more prominent racial hygienist of the Nazi regime managed to hold onto jobs in German universities as professors in human genetics, anthropology and psychiatry after the war (135). The view that eugenics disappeared after the Second World War has also been challenged by Clare Hanson, who in *Eugenics, Literature and Culture in Post-War Britain* (2013) argues that many supporters of eugenics, such as William Beveridge and Richard Titmuss, went on to play key roles in the founding of the post-war British welfare state. Hanson examines how eugenic ideas influenced many of the policies of the welfare state and traces the links between eugenicists and government committees, as well as organisations such as the Marriage Guidance Council. She argues that eugenic concepts influenced the debate over mental deficiency in the post-war years, inflating the importance of the issue, and reviving the idea of poverty being a result of hereditary defects. *Sterilized by the State* (2013), by Randall Hansen and Desmond King, makes a similar argument about the ongoing post-war influence of eugenics, but in relation to the USA. As in the UK, supporters of eugenics were careful to distance themselves from Nazi eugenics, but continued to advocate sterilisation and exercise influence over policies relating to population, welfare and birth control.

Hanson also argues that population policy offered new area for eugenicists to pursue their goals. C P Blacker became administrative chairman of the International Planned Parenthood Federation (IPPF) and, according to Hanson, pursued “crypto-eugenic” strategies to achieve eugenic ends by other means (124). In the case of population control this meant promoting contraception within Third World nations, ostensibly to improve standards of living but also to counteract fears “that the changing balance between races could pose a threat to the development of the species” (124). Eugenics and population control were similarly intertwined in the US, for example in the work of influential ecologist William Vogt, who in *Road to Survival* (1948) called for improved contraception, and incentives for sterilisation, particularly in Asia, where he saw the growing populations as backward and a threat to the world’s ecosystem (Robertson 53-54). The link between overpopulation and environmental degradation became a useful lever for eugenicists looking to promote checks to population growth, for, as one letter writer to *Eugenics Review* suggested, “it must be continually driven into people’s minds that the various inconveniences and frustrations from which we suffer to-day – destruction of the country-side, over-crowded transport, road accidents, noise – all have their roots in over population” (Pelly 255). This concern, as historian Thomas Robertson argues, led to an “environmental Malthusianism” which contributed to the thinking behind the environmental movements of the 1960s and 1970s.

Ecology, the study of the interaction of organisms with their environment, became the chief science of the new environmental movement, covering interests from pollution to preservation of the wilderness. Rachel Carson’s *Silent Spring* (1962) offered an exposé of the effects of pesticides on the environment, while James Lovelock’s Gaia hypothesis, formulated in journal articles in the early 1970s, developed the idea of a self-regulating Earth. Scientific concerns about the environment were underpinned by a growing awareness of the impact of people and industry on the ecosystem, and the potential consequences of environmental degradation to quality of life. In 1973, the Norwegian philosopher Arne Naess coined the term “deep ecology” to encourage a more holistic approach to understanding the roots of environmental problems, and to assert the value of nature in itself, irrespective of its usefulness for human beings. Naess distinguished between “deep ecology” which questions the place of

humans in nature and "shallow ecology" which he characterised as mainly being concerned with pollution and resource depletion in developed countries.[123] One of the tenets of deep ecology was that the environment would benefit from a lower human population. Popular concerns over population levels were fuelled in the late 1960s by Paul Ehrlich's sensationalist *The Population Bomb* (1968), which suggested that the environmental crisis was due to overpopulation: "Too many cars, too many factories, too much detergent, too much pesticide, multiplying contrails, inadequate sewage treatment plants, too little water, too much carbon dioxide – all can be traced easily to too many people" (44). Garrett Hardin in the influential article "The Tragedy of the Commons" (1968) likewise argued that population levels needed to be restricted to prevent pollution and environmental degradation, warning that "No technical solution can rescue us from the misery of overpopulation. Freedom to breed will bring ruin to us all" (1248).

The increased environmental consciousness of post-war utopian fiction provides an additional layer of complexity to arguments about eugenics in utopia, since ecological thinking challenges the ideology of progress central to the scientific utopia. It could be argued that the concept of a green utopia is a contradiction in terms, since utopias have traditionally focussed on developing the ideal social and cultural conditions for humans to flourish rather than adopting an eco-centric perspective. However, Dutch political scientist Marius de Geus argues that "not all utopias portray nature as an instrument for the benefit of humanity, nor that humans have the right to dominate nature" and goes on to identify "an influential ecological-utopian movement where nature is completely respected and not subordinated" (55). His examples of ecologically sustainable utopias include the cloistered community of Thomas More's *Utopia* (1516), Thoreau's wilderness idyll of *Walden* (1854) and William Morris's garden cities in *News from Nowhere* (1890).The wider purpose of de Geus's study is to consider what can be learned from utopian fiction to inform the practical discussion of sustainability and argue for the value of utopian thinking in offering positive images of alternative societies. Eco-critic Andrew Dobson also picks up on the link between ecological thinking and utopia, stating that

[123] For Naess's seven original tenets of deep ecology see "The Shallow and the Deep, Long-Range Ecology Movement: A Summary" (1973). Naess later developed eight points of deep ecology in collaboration with George Sessions in 1984 (see Rothenberg Chapter VII "Defining the Deep").

"[t]he Green sustainable society is a Utopian society, properly speaking" (5). More recently, sociologist Lisa Garforth has likewise promoted the potential of utopian fiction to contribute to reimagining the future in a more environmentally conscious way, bemoaning the fact that "there has been little attention to the ways in which the reflexive and critical strategies of recent Utopian narratives can make a distinctive contribution to radical ecology's social critiques and the process of imagining more environmentally cautious forms of society" (393). In 2013, the journal *Green Letters: Studies in Ecocriticism* devoted a whole issue to Utopias and the Environment (Vol 17, Issue 3). Guest editor Geoff Berry endorsed the value of "ecotopian dreaming" ("Guest" 195), rejecting older utopian ideas of global abundance that fuel the unsustainable growth models of modern capitalism in favour of the utopia of sufficiency identified by De Geus as the basis for ecotopian imaginings. Berry sees the critical ecotopia as a vehicle for renovation, arguing that "From deep within such an ecotopian worldview, we may see fit to release ourselves as a people from the fuel fetish/light worship/power dream of perpetual abundance that continues to drive the postmodern, global urban marketplace" ("Afterword" 292). In all these discussions, ecotopias appear to have transcended their fictional status to be regarded as examples of good environmental practice. However, as I show in the following sections, the environmental credentials of the post-war ecotopia remain debatable, while their credibility as blueprints for a better world are called into question by the eugenics agenda of the post-war years.

6.2 *Walden Two*: A Green Dystopia?

B. F. Skinner's *Walden Two* is not dissimilar to the dystopias of the inter-war years, both in its active adherence to scientific principles and in the resulting confusion over whether it should be considered a utopia or dystopia.[124] Indeed, early commentators treated *Walden Two* with considerable hostility, mainly due to Skinner's advocacy of behaviourial conditioning to achieve his utopian aims. For example H.A.L. reviewing for *The Journal of Philosophy*, linked *Walden Two* to Huxley's *Brave New World* and *Ape and Essence*, stating

[124] Glen Negley and J. Max Patrick in *The Quest for Utopia* (1952) consider *Walden Two* to be dystopian, and Keith M. Booker lists it as a dystopia in *Dystopian Literature: A Theory and Research Guide* **(**1994). For more examples of both positive and negative responses to *Walden Two* see also Kenneth M. Roemer "Mixing Behaviorism and Utopia" (126).

that: “The mid-twentieth century utopia is horrible, not because it is full of Buck Rogers gadgets, but because it is based upon the notion of the systematic, planned control of human beings by other human beings...” (654-5). Skinner believed that a science of behavioural control was possible, and that through manipulating environmental conditions human behaviour could be improved more dramatically than via genetic changes. He was an experimental psychologist whose earlier publication *The Behavior of Organisms* (1938) pulled together the results of ten years of research on the conditioning of rats. *Walden Two* proposes the use of the same behavioural techniques on humans, and the description of how this concept works within the setting of a small community of around a thousand people forms the substance of the novel. Despite this initial hostility, by the 1970s *Walden Two* was perceived more positively, and had even become the inspiration for a number of intentional communities run on similar lines.[125] In 1972 Skinner reported that “In the first fourteen years, the book sold only ten thousand copies; last year it sold a quarter of a million” (“Walden (One)” 1). When *Walden Two* was reprinted in 1976, Skinner wrote an introduction, “Walden Two Revisited”, in which he repositioned it as a response to the issues of pollution and consumerism that were high on the environmental agenda at the time. My analysis of *Walden Two* will look at these two facets of its reception and consider firstly the link between behavioural engineering and coercive practices such as eugenics, and secondly the green credentials of *Walden Two* and the legitimacy of its position as an environmental text.

The plot of *Walden Two* is quite minimalist, even for a work of utopian fiction. It involves a group visit to the utopian community of Walden Two, and largely consists of a dialogue between Frazier, one of the founders of the community, and the visitors, in particular a sceptic named Castle, and the narrator, Burris, who eventually joins the community. The visitors are given privileged access to the community, and look at the usual areas of education, economics, governance and the minutiae of daily life. But it is the behaviourist elements which excite the most discussion. The visitors hear about the behavioural conditioning which takes place from an early age in the form of simple exercises in self-control. Young children are trained to defer the gratification of eating lollipops, or wait in front of steaming bowls of soup until

[125] Most notably Twin Oaks Community in Virginia (http://www.twinoaks.org/).

given permission to eat them (98-100). The sceptical Castle considers this a form of torture, but Frazier maintains that these techniques help the children to adjust to adverse circumstances (101). The purpose of this training is to promote behaviours suitable for the community living of Walden Two, using experimental practices to find out how behaviour can successfully be modified. Frazier declares, in language which echoes the rhetoric of negative eugenics, that "when a particular emotion is no longer a useful part of a behavioural repertoire, we proceed to eliminate it" (93).

Kumar argues that Skinner's version of conditioning was very different from the Pavlovian conditioning of stimulus and response satirised by Huxley in *Brave New World* (354). Skinner's conditioning, known as "operant conditioning", involved the reinforcing effect produced by the consequences of behaviour. Instead of just mechanically responding to stimuli which manipulate emotions, "operant conditioning" focuses on the results of the behaviour. Desirable behaviour receives positive reinforcement through rewards; unsuccessful behavioural strategies are eliminated through negative reinforcement. The consequence of this, as Kumar describes, is that the environment comes to play a crucial role because "[t]he environment is the source not just of the stimulus but of the 'reinforcement'" (355). Skinner saw the environment as acting on behaviour in a similar way to natural selection, selecting for certain feelings and traits which enhance survival in the natural and social environment.[126] However, Skinner's concept of the behavioural modification process was initially more mechanical than biological. Roy Moxley, who has written extensively on aspects of Skinner's behaviourism, points out the tension between mechanical determinism and biological selectionism in Skinner's view of conditioning, and argues that Skinner moved from a belief that a knowledge of all the variables could lead to absolute certainty to a more relativistic post-modern position where truth is provisional, based on experimentation and subject to change ("Two Skinners"). A mechanistic account of behaviourial modification, based on industrial processes, is still very much in evidence in *Science and Human Behavior* (1953), where Skinner asks: "Why should the design of a culture be left so largely to accident? Is it not possible to

[126] For example see *Beyond Freedom and Dignity* (1971) where Skinner wrote: "The role of natural selection in evolution was formulated only a little more than a hundred years ago, and the selective role of the environment in shaping and maintaining the behavior of the individual is only beginning to be recognised and studied" (25).

change the social environment deliberately so that the human product will meet more acceptable specifications?" (427).

The concept that the needs of the community take precedence over those of the individual is fundamental to the project of behavioural conditioning described in *Walden Two*, leading to the criticism that the individual has no rights. Although the residents of Walden Two have joined the community by choice, once there they submit to being controlled by the leaders of the community who are unelected technicians and specialists who make decisions for the majority. This level of control occurs in all aspects of community life. The medical practitioners "can place the whole community in quarantine with respect to the outside world" and "can ask for personal examinations of the members as often as [they] like"(176). Dentists eliminate tooth decay through enforced check-ups and fluoridisation. There are no limits placed on what can be tried, provided it seems scientific. Babies are grown at the right temperature like plants in a greenhouse, with the nursery supervisors explaining that "The newborn baby needs moist air at about 88 or 90 degrees" (87). However, unlike the baby factories of *Brave New World*, the conditions are not imposed to achieve a specific end result, but have been developed through observation of the babies and the conditions that provide the best levels of comfort. All the same, M. Keith Booker has a good case when he argues that "the faith shown by Skinner in scientific reason comes dangerously close to that shown by the rulers of Zamyatin's One State and many other dystopian regimes" (249).

Given the scientific management of all aspects of personal life, it is no surprise that Walden Two practices its own version of eugenics. Frazier takes it for granted that a certain amount of eugenic care is important, and that family life is open to experiment in the same way as other aspects of community life:

> We discourage childbearing of the unfit of course, but that's all. You must remember that we've only recently reached our present size, and even so, we aren't large enough for serious experimentation. Later, perhaps, something can be done. The weakening of the family structure will make experimental breeding possible. (126)

This weakening of the family structure involves the group care of children, designed to prevent strong emotional ties and instead implement scientific principles of child care. Marriage happens at an early age, and is based more on compatibility than romantic interest. There is even a post of "Manager of

Marriage", responsible for checking the physical, intellectual and temperamental suitability of couples for marriage (125). Early marriage is seen as a way of resolving the conundrum of allowing women career opportunities while ensuring that they carry out their reproductive duties. Women in Walden Two can complete their child-bearing in their early twenties, then go on to join the workforce. As Clare Hanson points out, women did not juggle child-bearing and careers in the post-war era in the same way as today, because they were expected to devote their full attention to their children, and so "women's dual role was always conceived sequentially" (27). However, in Walden Two, women are also freed from the duties of raising children. Far from representing child-care as an essential role for the brightest and best women, as Hanson describes happening in post-war Britain (31), Skinner sees child-rearing as impersonal and scientific.[127] For example, Frazier describes the role of the nursery worker as being "very close to that of a highly skilled laboratory technician" (134) and emphasises that there is no stigma attached to men taking on jobs in this area. In *Walden Two*, Frazier criticises the gendered roles of the traditional marriage partnership: "To make matters worse, we educate our women as if they were equal, and promise them equality. Is it any wonder they are soon disillusioned?" (136). However, even though Walden Two offers women the opportunity to have a career as well as children, it is at the expense of family life as a whole, and gives scientists the responsibility of raising children in laboratory conditions.

Skinner uses the terms "genetic experiments", "genetic program" or "genetic plan" rather than eugenics in *Walden Two*, however the concept of selective breeding is most definitely alive and well. The communal care of children offers the potential for a more radical style of eugenics:

> The hereditary connection will be minimized to the point of being forgotten. Long before that, it will be possible to breed through artificial insemination without altering the personal relation of husband and wife. Our people will marry as they wish, but have children according to a genetic plan. (133)

[127] Hanson refers to Alva Myrdal and Viola Klein's *Women's Two Roles: Home and Work* (1956) which stressed women's duty "to improve the quality of the next generation" (28) and Judith Hubback's *Wives Who Went To College* (1957) which "arg[ues] for motherhood as the primary duty of intelligent women" (31).

Here Frazier is suggesting that genetic connections within families would be abolished in favour of breeding to plan from desirable genetic material, though there is no indication of which genetic traits would feature in this "genetic plan". Castle criticises the dissolution of family life for "flying in the face of strong natural forces", an accusation that Frazier brushes aside by suggesting that no-one knows much about "the *nature* of parental relations" (italics in original) (133-4). Skinner's point here is that family relationships are culturally-constructed, and therefore scientific breeding plans and separation of offspring from parents are no more unnatural than other traditions of family life. However, since these practises have no equivalent outside of agricultural practices of animal husbandry, Skinner is still side-stepping the issue that they will be perceived as being unnatural. It is also clear that Skinner sees behavioural conditioning and anonymous genetic heritage as a response to the racial hatred displayed in the recent war, arguing that: "The family was only a little race, and it had better go" (291).

Some of the energy and urgency of *Walden Two* comes from a sense that there needed to be changes after the horrors of World War Two. Frazier argues that "The competitive talents which have made man pre-eminent – right up to the invention of the atomic bomb – aren't enough for the step he must take next" (280). But Skinner's solution is not very different from earlier utopian writers, in that he sees science as the key to saving humankind. Moxley argues that Skinner adopts a positivist stance in *Walden Two*, displaying a belief in scientific certainty, a predisposition to unified systems of knowledge and the assumption of continuous progress ("B. F. Skinner's" 20). All of these traits can be seen in the character of Frazier, who holds an unshakeable confidence in the efficacy of behavioural conditioning and the perfectibility of people through this method. Moxley also points out the influence of Wells and Bellamy on Skinner, and the relationship between behaviourism and the scientific management of Taylorism that Zamyatim satirises in *We*. M. Keith Booker goes further in arguing that Frazier can be seen as being in a "long line of "benevolent" dystopian rulers that include Dostoyevsky's Grand Inquisitor, Zamyatin's Benefactor, and Huxley's World Controller" (252).

Despite these links to the scientific utopia and to a scientific methodology associated with the exploitation of nature in the service of human interests, *Walden Two* has rightly earned a reputation as an inspiration for green

utopianism. De Geus includes *Walden Two* in his list of ecological utopias of sufficiency and praises the book's criticism of various alienating effects of American society of the 1940s, including consumerism, lack of individual agency within the democratic process and the anonymity of large-scale social organisations (139-40). Another factor in the perception of *Walden Two* as a green utopia is its evocation of the utopian communities of nineteenth century America such as the Oneida Community, Brook Farm or, of course, Thoreau's Walden experiment.[128] Skinner states in his introduction to the 1976 reprint that he was inspired to write *Walden Two* by reading Alice F. Tyler's *Freedom's Ferment* (1944), an account of "perfectionist movements" in nineteenth-century America (vi). Tyler based her account on the books and pamphlets of the various political, religious and utopian movements that sprang up in the century following American Independence, characterising this period as a time of new ideas, experimentation and idealistic enthusiasm for causes and progress. Skinner shared Tyley's sense of the newly independent America as being an exceptional site for utopianism: "The founding of America was a unique event in the history of the world. Here was a nation which seemed to be explicitly designed in advance. Its success induced Americans to set up smaller versions of designed ways of life" ("Walden (One)" 2). The strong link between *Walden Two* and actual nineteenth-century utopian communities is signalled by the fact that Walden Two is situated neither in an imaginary future nor in a geographically remote region, but in a rural area of mid-twentieth-century America. As critic Kenneth M. Roemer says: "All it takes to get to utopia is the price of bus and train tickets and a few bumps endured while traversing a rural road in a station wagon" (129). Moreover, by naming his book after Thoreau's *Walden*, Skinner was referencing one of America's most highly regarded writers on the natural environment. *Walden* is the account of Thoreau's experiment in self-sufficiency, living in a cabin he built for himself at Walden Pond, near Concord, Massachusetts. Thoreau spent over two years in the cabin, living off the land and some occasional lecturing work, simplifying his life down to what he saw as his true needs: "Food, Shelter, Clothing and Fuel" (*Walden* 11). De Geus describes Thoreau's *Walden* as "a hymn to the nature around his forest

[128] Roemer points out that Skinner's undergraduate college "was located near the site of John Humphrey Noyes's Oneida Community" while Skinner grew up in Susquehanna, Pennsylvania near to where "Joseph Smith dictated the Book of Mormon and the Harmony settlement" (130).

hut", and praises Thoreau's non-instrumentalist view that "nature was not created to be a possession of man, but exists in and of itself, and deserves to be treated with affection" (80). Skinner was undoubtedly a Thoreau enthusiast. In a speech read at the Thoreau Society in 1972, he described his love of Thoreau's work and his personal connection to *Walden* through living in Harvard and visiting Walden Pond ("Walden (One)" 1).

Still, the extent to which "back to basics" was at the heart of Skinner's concept for *Walden Two* remains debatable. Certainly, one of his central arguments is that it is possible to live well on working only four hours a day if the whole community is involved. However, the technology to support this includes cars and trucks, radio sets, modern agricultural equipment and labour-saving devices such as dishwashers. Admittedly, Skinner justifies this use of machinery on the grounds that the sharing of communal community resources leads to a far lower level of consumption than if they were owned by individual families. His argument, though, is not primarily about consumerism, but about time. Freeing up time for creative activities is as much the aim of the community as reducing their environmental footfall. Relaxation is valued, so long as it has an educational benefit. Art, science, music, physical activities and debates are all encouraged to combat what Skinner perceived as a value-free lifestyle of modern America engaged in "the blind struggle to 'have a good time', or 'get what we want'"(148). However, Skinner does not link this rejection of modern culture to loss of contact with nature as later environmental writers would.[129] Instead, he seems more interested in the self-fulfillment that comes from "sports, hobbies, arts and crafts" and a curiosity about the world (148).[130]

De Geus argues that "A multitude of subtle clues in the text of *Walden Two* suggest a profound interest in the theme of nature and the environment" (149). These include re-using and repairing materials and designing for energy saving, practices which suggest an environmental awareness, but also a desire for efficiency and thriftiness. Love of nature for its own sake is much less evident. There are pleasant walks to the pond, which the children use as a swimming environment, and ingenious devices to allow sheep to be deployed in

[129] For example, eco-philosopher Chellis Glendinning wrote in a 1992 essay: "I believe Western culture is suffering from "Original Trauma", caused by the systemic removal of our lives from nature, from natural cycles, from the life force itself" (37)

[130] However, see also Stableford's discussion of the association between hedonism and ecocatastrophe in the early twenty-first century (277).

lieu of lawnmowers, but little place for wilderness or wild animals. Nature is a resource like everything else in Walden Two. If it needs to be protected then the inhabitants will be conditioned to value it, but there is little sense of Thoreau's enthusiasm for observing and appreciating nature. Frazier is described as being fascinated by "trade treaties with nature" (18), that is to say the small ways in which the natural environment can be used to enhance the built environment of Walden Two, such as using a pine grove to screen the workshops from the sleeping quarters (17-18). While this interest in using natural materials in the design for Walden Two shows an environmental sensibility, the focus is still on valuing nature for what it can do for humans, rather than in its own right. Skinner seems to be aware of this lack in his protagonist. Burris comes to the realisation that while Frazier dreams of "economic structure and cultural design" he is out of touch with reality: "I thought of Emerson at Brook Farm, tilling the soil for the love of it, and I felt a sudden sharp concern that Walden Two might have some fatal flaw" (71). Burris is reassured by the practical competency of the dairyman milking the cows, but Frazier's own relationship to the simple life he recommends remains problematic. Frazier is an unusual representative of utopia, as he is awkward, often angry or frustrated, and not always able to persuade others of his point of view. This characterisation was a deliberate ploy by Skinner, who tried to avoid Frazier simply coming across as a mouthpiece for his ideas by giving him what he called "negative charisma" (qtd. in Roemer 135). Skinner also uses Frazier's maladroitness to counter the suggestion that Frazier was some kind of fascist-style dictator with a personal following of his own. *Walden Two* was written in 1945 just after the defeat of Hitler, and bears the marks of this era in Frazier's determination to disclaim any similarities to Hitler's cult of personality (218). Nonetheless, Frazier does see himself as a God-like figure, claiming that the creation of Walden Two "was closer to the spirit of Christian cosmogony than the evolution of the world according to modern science" (281) and that it was more deliberately planned than any of the outcomes of evolution. Frazier is shown at the end of the book viewing the community from afar through a telescope, "examin[ing] various details of his handiwork" (282). However, Skinner makes it clear that Frazier is not a product of Walden Two, and therefore his shortcomings are those he brought with him into the community. Frazier admits that "No one is more competitive – more

aggressive – than I" (280). He is not meant to be Thoreau or Emerson, as that will be the role for the next generation.

Literary critic Harvey L. Gable Jr. argues that in terms of relationship with nature "Walden Two is essentially a post-modernist utopia" (2), conforming to Fredric Jameson's declaration that "To do away with the last remnants of nature and with the natural as such is surely the secret dream and longing of all contemporary or post-contemporary, postmodern thought" (46). Gable argues that for Skinner nature is an invisible infrastructure which needs to be controlled in order for his experiments to work: "the primary goal of the reformer is to disintegrate (human) nature, because nature is inconvenient when it conflicts with the cultural values one wishes to instill" (2). However, Skinner's view of nature is more real than Gable's postmodern paradigm would suggest. Nature is more than just another element of the cultural environment of *Walden Two*, but is its real, and possibly only, adversary. The efforts of behaviourism are directed towards creating a co-operative culture where the sum of happiness is more important than that of any individual, and so any competitive urges are channelled into a battle against nature rather than against other people. Competitiveness, as noted earlier, has become a disadvantage to human development and needs to be eliminated, or changed into a "noncompetitive intelligence" (280). Walden Two is designed to be a community where co-operation will provide an environment in which everyone can flourish. So, competitive sports are banned, and praise is given to "those who dive with exceeding grace, or polevault at a high setting of the bar. Their achievements are triumphs over nature or over themselves" (222). The same applies to education, where Frasier states that "[w]e carefully avoid any joy in a personal triumph which means the personal failure of somebody else.... Triumph over nature and over oneself, yes. But over others, never" (103). Interestingly, Skinner includes dogs in this co-operative culture. Frazier argues that "The co-operation of man and dog is very different from the slavery of man and beast", proposing the former as the model for progress. So for Skinner, "the urge to control the forces of nature" (116) is an important motivating force for the well-adjusted, trauma-free citizens of Walden Two, providing an incentive for working hard in a non-competitive environment.

Although co-operation can be seen as a positive trait from an environmental point of view, the conditioning of children in the novel to prevent

competitiveness risks lack of diversity. As James W. McGray points out, “their training has exorcised a number of behavioral possibilities. It is impossible for a Walden Two product to be competitive, wild, perverse, heretical, impulsive, jealous, etc.” (21). But for him, this early training is justified on the grounds that there is an urgent need to “provide an alternative to our uncontrolled, chaotic, and competitive social structure” (22). Kumar, on the other hand, feels that the loss of diversity through conditioning is a serious problem: “The more successfully a species or society adapts to the current environment, the less store of diversity it preserves to meet future contingencies.” He concludes that with every suppression of unnecessary character traits by a rationalising elite “the species or society launches itself further along the path to extinction” (376). Nevertheless, Skinner’s experimental ethos includes a strong survival instinct, for example in the refusal to limit the birth rate, which is one way of ensuring the diversity and continuation of the community. He overcomes potential objections to overpopulation by arguing that “It’s no solution of the Malthusian problem to lower the birth rate of those who understand it.” (126). However, by the time that Skinner wrote “Walden Two Revisited” for a new edition of his novel in 1976, he accepted the need for limiting populations in order to save resources for the future, arguing that “It should be easy to change the birth rate in an experimental community” (xi).

In the same essay, Skinner referenced E. F. Schumacher’s *Small is Beautiful* (1973), recommending a network of small towns or Walden Twos to deal with some of the “ills of bigness” caused by large cities (ix-x). *A Bueprint for Survival* (1972), an influential document from the editors of the Ecologist, makes similar suggestions, proposing decentralisation into small communities of around 5,000 people, divided into neighbourhoods of around 500 to allow for local decision-making, sense of community and small-scale self-sufficient farming. In this respect, Walden Two could be seen as the very model of the 1970s environmental community, and forward-thinking despite its roots in the pre-war philosophies of scientific rationalism. However, Skinner’s commentary on *Walden Two* in the 1970s shows a much greater environmental awareness than the original text and a tendency to proclaim himself as an environmentalist *avant la lettre*, for example in his realisation that “Walden Two is not only minimally consuming, it is minimally polluting” (“Walden (One)” 2).

Skinner addresses some of the same issues over scientific control and rationality versus freedom and emotion that Zamyatin raises in *We*, but believes that human passions can be redirected through conditioning, rather than turning out the mindless robots of Zamyatin's "fantasiectomy". Skinner wrote *Walden Two* to show that behaviourism could safely diffuse human passions and emotions without harming the individual's ability to live, love and create art, though he did struggle with the fact that it also turned people into obedient and uncritical citizens. In an article entitled "What's Wrong with Walden Two" (2009), Pedro Alexis Tabensky argues that the main problem with Walden Two is not lack of individual control over the conditions of life in the community but too much control. While Skinner's drive to eliminate danger from his community is understandable in the immediate aftermath of World War Two, it is not just the extent of control that is the problem, but the illusion that all of life can be controlled. Walden Two noticeably contains no sick and dying people. Skinner has designed a world still based on the belief that with enough knowledge, science can dominate all the forces of nature.

Two factors distinguish Skinner's utopia from earlier scientific utopias. Firstly, the emphasis on continuous experimentation; although Charlotte Haldane makes heroes of the pioneering self-experimenting leaders of her society, it is on an individualistic basis in the cause of transcending humanity, whereas Skinner's experimentation covers every facet of daily life. Science is not didactic, but provisional. Secondly, like Bellamy, Skinner's belief in the benefits of co-operation and small-scale communities leads to a more environmentally-friendly version of the scientific utopia. He is resolutely anti-racist in his approach, and has no interest in setting up a world state or enforcing political control. Although human culture takes priority over nature in *Walden Two*, working with the natural world is seen as important for the benefits that humans can gain, and in Frazier's fascination with "trade treaties with nature" there is the beginning of an understanding of what might be gained from including the natural world in the ideal utopian community rather than trying to eliminate it. Finally, although eugenics remain a factor in the life of Walden Two, environmental conditions are recognised as being of major importance, and there is a confident inclusiveness in the idea that, whatever their background, humans can be trained to live well together.

In the next section I explore the ecological credentials of Aldous Huxley's *Island* (1962) and argue that Huxley's view of nature is as anthropocentric as Skinner's. However, while Huxley, like Skinner, proposes to perfect human nature through a mixture of eugenics and other forms of conditioning, he also acknowledges an individual responsibility in this process, an element that is absent from Skinner's operant conditioning. This change reflects the shift in the conception of eugenics after the Second World War from state-enforced programmes for improving population to individual genetic interventions, where, as sociologist Nikolas Rose argues, "The norm of individual health replaced that of the quality of the population" (12).

6.3 Aldous Huxley's *Island* and the Path to Ecological Enlightenment

Aldous Huxley's *Island* is often seen as the utopian counterpart to *Brave New World*, or as Huxley himself put it "a kind of reverse Brave New World, about a society in which real efforts are made to realize human potentialities" (qtd. in Beauchamp 59). There is also a tendency to see *Island* as representing the peak of Huxley's wisdom, his conversion from cynical satirist to wise humanist. June Deery, writing on Huxley and mysticism in 1996, proposes that although most people associate Huxley with the dystopian *Brave New World*, "the eutopian *Island* is one of his most important works, as I believe a new generation is about to discover" (7). Its position as Huxley's last novel also confers on it a status of defining work, crucial to the understanding of Huxley's later work. Charles Holmes suggests "It comprises his answers to all the questions raised in his earlier works, with greater consistency and unity than ever before" (197-98). *Island* also benefits from its reputation as a green utopia containing an early criticism of the environmental destruction caused by capitalist industry. De Geus includes it in his survey of ecological utopias as an attempt at "an ecologically stable society in which nature and environmental conservation are given priority" (153), while Werner Christie Mathisen discusses it as "an important green literary ecotopia" alongside Le Guin's *The Dispossessed* and Callenbach's *Ecotopia*.[131] There is no doubt that Huxley saw

[131] Tom Moylan, writing a new chapter on *Island* for the 2014 reprint of his classic text *Demand the Impossible: Science Fiction and the Utopian Imagination*, also sees it as a precursor to the environmentally conscious critical utopias of the 1970s, only held back by its lack of self-critique

it as an important work too. The manuscript for *Island* was one of the only things he rescued when his Californian home caught fire in 1961, and his disappointment at it not being better understood or appreciated is documented by his second wife Laura Archera Huxley.[132] However, despite the dichotomy set up between the dystopian *Brave New World* and the utopian *Island*, there appears to be more continuity between the ideas that occupied Huxley in *Brave New World* and those he develops in *Island* than is generally supposed. For example, despite the thirty years between the two books, the events of the Second World War, and Huxley's move to the USA, he was still concerned with declining IQs, excess population growth and the negative influence of popular culture, and he still regarded eugenics as crucial for the development of the human species. This section of the chapter will consider whether these concerns which appear more characteristic of the 1930s than the 1960s are simply old ideas refreshed with a dash of fashionable experimentation into mind-expanding drugs and ecological politics, or whether there are significant changes in Huxley's world view which impelled him to move away from the dystopianism of *Brave New World* and the post-war devil-worshipping society of *Ape and Essence* (1948) to express his ideas in the utopian mode.

Huxley began work on *Island* in 1956, although according to George Woodcock, "all his work during the decade from 1952 to 1962, even where it is not a deliberate preparation for *Island*, in fact leads towards that novel" (223). In 1958 Huxley wrote to his frequent correspondent Dr. Humphry Osmond that he was working on a "phantasy about a society in which serious efforts are made to realize human potentialities" ("Letter 793" 850) , though he had doubts whether he yet had a "satisfactory fable" which would appeal to readers reluctant to tackle "material which isn't straight story telling". Noticeably, the one word Huxley does not use to describe his otherwise difficult to classify story, at this point, is utopia.[133] For Huxley, one of the key features of the story is that

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and political engagement, and its "resigned stance that better serves an anti-utopian rather than a utopian imaginary" (221).

[132] Contemporary reactions to *Island* were mixed. Most found the ideas interesting but the story rather dull, and were clearly nostalgic for the earlier version of Huxley, valuing his "energizing disgust" (Kermode qtd. in Watt 454) and his "high-spirited and debonair satirical poise" (Furbank qtd. in Watt 449). For a range of reviews see Watt, *Aldous Huxley: The Critical Heritage*, 446-58.

[133] By 1959, Huxley does refer to *Island* as a "Utopian Novel" in a letter to his son Matthew, but hopes that it will be better than previous utopias: "For most Utopian book have been exceedingly didactic and expository. I am trying to lighten up the exposition by putting it into dialogue form, which I make as lively as possible" ("Letter 819").

this society could really exist, even if only at a certain time, and in a certain place. As he writes to Osmond: “The locale of the story is a hypothetical island between Ceylon and Sumatra – independent in spite of colonialism, where the process of turning an old Shiva-ite-cum-Mahayana-Buddhist society into something combining the best features of East and West was inaugurated in the eighteen-forties”(“Letter 793” 850). This setting offers Huxley the opportunity to imagine a society based both on Western science and Eastern religious practices, in a location sufficiently isolated to demonstrate its potential over a number of generations. Huxley’s concern that the society he describes should be believable is underlined by the quotation from Aristotle he uses as an epigraph to *Island*: “In framing an ideal we may assume what we wish, but should avoid impossibilities” (6).

The plot of *Island* is quickly summarised. Journalist Will Farnaby is washed ashore on the mysterious island of Pala with a mission to act as a representative for his editor’s oil interests. He is taken around the island, to learn the details of its systems of education, technology, healthcare and family life, but more importantly goes on a personal journey from sceptic to convert to the Palanese way of life. Will’s damaged emotional past is healed by the recently-widowed Susila, who encourages him to move from a cynically destructive attitude to life, to a realisation that guilt and fear of death can be overcome by living a positive, accepting life in the present moment. Will also rejects the false spiritualism and consumerist values represented by the Rani and her son, Murugan, the heir to the Palanese throne, who are the main targets of Huxley’s satire. Will’s visit culminates in him taking the “moshka-medicine”, the psychedelic drug which underpins the spiritual life of the island, just as the invasion by neighbouring dictator Colonel Dipa begins to take place.

One of the more striking dichotomies in *Island* is that while the inhabitants of Pala deliberately refuse to act against the looming threat of military invasion, they expend time and energy on perfecting all other aspects of their life, including planning for their genetic future. Will Farnaby visits a typical Palanese family and discovers that the couple’s baby is genetically related to the mother, but not the father. Technology for Artificial Insemination by donor (AID) has reached the stage where parents can go to the sperm bank and choose a talented individual as father, whether to enhance the genetic diversity of their family or to avoid inherited diseases. Ethical objections to this process

have been overcome in an original way by treating AID as a scientific manifestation of karma. Those who have lived a good life will be reincarnated through their genes, a process which is aided by good genealogical records and a central bank of "[s]uperior stocks of every variety of physique and temperament" (188). Watt argues that "The notion of an artificial stock of babies perhaps at first recalls, disturbingly, the bottled babies of *Brave New World*. But the crucial difference, for Huxley, is that in the earlier novel the State completely and ruthlessly controlled production, whereas in *Island* the decision to try AI and the choice of the stock rests entirely with the parents" (154). While freedom from state control and personal responsibility for genetic choices demonstrates a significant change, it could be argued that peer pressure represents another, more subtle form of coercion in a society where, as Farnaby learns, "most married couples feel that it's more moral to take a shot at having a child of superior quality than to run the risks of slavishly reproducing whatever quirks and defects may happen to run in the husband's family" (188). AID also suggests a low tolerance for the normal variations that arise in the population, and a preference for some degree of genetic perfection. Lambert Schmithausen, an expert in Buddhism, agrees with Watt that AID is acceptable when it is "dependent on the free decision of individual couples" as well as feeling that its eugenic aims are justifiable providing they are for "improving the race" (167). This cautious approval highlights another problem with Huxley's use of artificial insemination in *Island*, which is that whereas *Brave New World* offers a satirical critique of such eugenic measures, *Island* seeks to persuade the reader of their importance. Clare Hanson points out the similarity of the Palanese programme to Hermann J. Muller's proposals for freezing and storing sperm from superior donors to offer 'germinal choice', a suggestion which Huxley's brother Julian was also enthusiastic about (Hanson 77, 128). Although Muller was primarily concerned about the accumulation of individual genetic defects in the human population, his programme also addressed the traditional eugenic concern with differential reproduction which in his view favoured the "clumsier, slacker, less provident" over the "better endowed" (Muller 252, 254). Muller's main aim was to initiate a new form of eugenics to deal with the increasingly complex challenges of preserving democracy, which he believed required "higher, more widespread intelligence and co-operative propensities" (261).

Huxley expressed similar concerns about differential reproduction in "The Double Crisis" (1950), arguing that "Within any nation whose birth-rate is declining, there is a tendency for the decline to be most rapid among the most accomplished and gifted members of the population, least rapid among those whose hereditary and educational endowment is the lowest" (232). Indeed, one of the main aims of the Palanese eugenics programme is raising average IQs, and avoiding the dysgenic effects of improved healthcare, summarised as: "Better medicine – more congenital deficiencies preserved and passed on" (188).[134] However, it is unclear why it is so important to have a high IQ in the kind of society that Huxley describes on Pala. If, as Farnaby is told, the purpose of education on Pala is "For actualization, for being turned into full-blown human beings" (202), then raising IQs seems largely irrelevant. Huxley even introduces a character to demonstrate the lack of relevance of intelligence to this goal. The librarian, Leela Rao, asserts:

> Pala's the place for stupid people. The greatest happiness of the greatest number - and we stupid ones *are* the greatest number. People like Dr Robert and Vijay and my darling Ranga – we recognise their superiority, we know very well that their kind of intelligence is enormously important. But we also know that our kind of intelligence is just as important. (185)

Huxley's recognition of a different form of intelligence, however, as this quote suggests, is somewhat half-hearted. The superiority of the type of intelligence measured by IQ tests is still taken for granted, and the benefit to society of really intelligent people is never questioned. Huxley also supports the kind of specialist education that produces nuclear physicists or philosophers, arguing: "No specialization, no civilization" (209). But, Huxley makes clear specialisation needs to be combined with a rounded education in order to avoid the "academic monsters" of the European education system. Certainly Huxley sent his own son Matthew to the experimental co-educational Dartington Hall School, which, as David Parsons argues, may have been a source of inspiration for the more holistic educational system on Pala.[135]

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[134] Julian Huxley made a similar point in the 1962 Galton Lecture (Hanson 77)

[135] Dartington Hall School, founded by Dorothy and Leonard Elmhirst, was inspired by the principles of Rabindranath Tagore who "wished to devise an educational system combining traditional Hindu religious philosophy and ideals of living with the rudiments of Western scientific knowledge and practical work experience" (Parsons 11), in other words a similar synthesis to the one that Huxley explores on Pala. For further information on Dartington Hall and its connections to the Huxley family see also Michael Young *The Elmhirsts of Dartington* (1982). It

When Huxley wrote about "Education for Freedom" in *Brave New World Revisited* (1959), his concerns centred on the ease with which propagandists could manipulate people, and the lack of understanding of genetics. He criticised behaviourism in general for its focus on environmental factors, and Skinner's work in particular for dismissing in less than a page the "genetic factors determining human behaviour" (139). Huxley argues that government and business still want the standardised human product of *Brave New World*, and will attempt to achieve this "through all the mind-manipulating techniques at their disposal" (145). Education for freedom, in Huxley's view, needs to correctly recognise the diversity and genetic uniqueness of individuals, but more importantly, train people in "propaganda analysis to preserve them from an uncritical belief in sheer nonsense" (148). Huxley also argues that freedom, love and intelligence are necessary for the preservation of society, claiming that without intelligence "love is impotent and freedom unattainable" (149). In other words, intelligence is the *sine qua non* for the other social attributes that Huxley finds important.

However, by the time Huxley wrote *Island* he had developed some ideas for alternative methods to combat irrational propaganda, which rely on neither freedom nor intelligence, and seem more closely related to the behaviourism he rejects in *Brave New World Revisited*. For example, in *Island*, babies are conditioned to love people or animals by being caressed while being fed, a process which is described as "pure Pavlov", but which, Huxley argues, can be used just as effectively for "friendliness and trust and compassion" as for "selling cigarettes and vodka and patriotism" (*Island* 190).[136] Once at school, children are taught breathing games to train them to redirect anger (206-7), as well as "Destiny Control", to bridge "the gap between theory and practice" in resolutions and actual behaviour (96). The visualisation techniques of Destiny Control are supposedly powerful enough to give "completely painless childbirth" to the trained practitioner (98). Children are also tested for their susceptibility to propaganda, or a predisposition to misuse power. In *Island* these last are

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is also interesting to note that Aldous Huxley's own mother, Julia Arnold (niece of Matthew Arnold), founded a girl's school, Prior's Field School, while Huxley himself was a co-founder of Happy Valley School in California. Huxley also addresses the issue of specialist versus trans-disciplinary education in "Integrate Education" in *The Human Situation* (1959).

[136] In *The Human Situation* Huxley credits Margaret Mead as the source of the idea for positive conditioning from her description of the Arapesh tribe in New Guinea (244).

categorised into what Huxley refers to as “two distinct and dissimilar species – the Muscle People and Peter Pans” (150-1), exemplified by Joseph Stalin and Adolf Hitler. Once identified, the Peter Pan types are cured by “early diagnosis and three pink capsules a day” (152), while the Muscle People are trained to be “aware and sensitive” and to sublimate their energy into strenuous activity (154). Huxley’s argument is that biochemistry is a major determinant of delinquent and bullying behaviour, and that abuse of power is not so much a social problem as a physiological one with “its roots in anatomy and biochemistry and temperament” (155).[137] On Pala, therefore, crime is either prevented through medicine and education, or when it does occur, is treated by therapy.

The other key element of social conditioning is meditation and the use of “moksha-medicine”, made from psychedelic mushrooms. Literary critic Dominic Baker-Smith is not alone in noting the similarity between moshka and soma, suggesting that “*soma*, the compensatory drug that keeps Mond’s citizens acquiescent, reappear[s] under the guise of *moksha*” (110). Huxley, though, saw moksha very differently from soma, not as “chemically induced euphoria” (*Revisited* 144), but as the gateway to transcendental knowledge, and therefore, I argue, as the means of creating a moral foundation for the whole society of Pala.[138] Moksha certainly plays an important part in the cultural and educational system of the island. Children have their first experience of the drug at graduation, when they are sent off to climb a mountain, and then given “four hundred milligrams of revelation” to round off the day. Adults take the drug at regular intervals thereafter, not in the manner of *Brave New World*, where the so-called “soma holiday” provided an all-purpose escape from the challenges of life, but a couple of times a year to aid spiritual development. Huxley is careful to frame moksha in a totally different way from hedonistic soma, for example by calling it moksha-medicine and specifying that its use be backed up by the hard work of daily meditation. Huxley clearly struggled with the idea that a whole

[137] Although this physiological determinism might appear to signal a move away from hereditarian accounts of human behaviour, for Huxley physiology remained linked to genetic heritage, hence his insistence on different types of treatment for different types of behaviour, rather than Skinner’s more universal, all-purpose conditioning.

[138] Woodcock sees a clear difference between drug use in the two books: “in *Brave New World* it provides a conditioning technique and its effect is therefore negative and life-constricting, but in *Island* (written in 1962 after Huxley had experimented with LSD) it is used in a positive Utopia as part of a technique of mental liberation” (177).

social order could be based on chemically-induced revelations. In a letter to Dr Osmond in May 1959, he observes: “There must be something rather disturbing, to people brought up in the traditional Christian fold, in the spectacle of an overwhelming conviction of sin being completely dissipated in a few days by a course of pills” (“Letter 813” 868). That Huxley himself found it disturbing, if for different reasons, can be observed by his fear that the abolition of Christian guilt through chemical means would lead to complacency and philistinism. Part of Huxley’s concern was not religious but cultural, since the value of education, literature and intelligence would be called into question if, as is stated in *Island*, using moksha means that “quite ordinary people are perfectly capable of having visionary or even fully liberating experiences” (172). The corollary being, as Huxley reluctantly had to admit, that “the men and women who make and enjoy high culture are no better off than the lowbrows” (172). Huxley’s other concern was that drug experiences tend to lead to enhanced perceptions at the expense of social responsibility. As he observes in *The Doors of Perception* (1954): “Mescalin ... gives access to contemplation – but to a contemplation that is incompatible with action and even with the will to action, the very thought of action” (26). The solution to this problem, Huxley argued, “can be found only by those who are prepared to implement the right kind of *Weltanschauung* by the means of the right kind of behaviour and the right kind of constant and unstrained alertness” (26). By returning behaviour and world view to centre stage, Huxley revalidates the relevance of education and mental attitude to the creation of a socially-responsible society.

In Pala, an appropriate state of mental alertness is achieved through the practice of tantric yoga. Huxley draws on the Eastern part of the heritage of his imaginary society to present a different type of behaviourism based on what he called the “transcendental pragmatism” of “oriental systems of philosophy” (“Letter 776” 827). In a letter to counter-cultural guru Timothy Leary in 1962, Huxley wrote:

> Tantra teaches a yoga of sex, a yoga of eating (even eating forbidden foods and drinking forbidden drinks). The sacramentalizing of common life, so that every event may become a means whereby enlightenment can be realized is achieved, essentially, through constant awareness. This is the ultimate yoga – being aware, conscious even of the

> unconscious – on every level from the physiological to the spiritual. ("Letter 888" 929)

This concept, which is very similar to the precepts of the currently popular mindfulness movement, is all-pervasive in Pala: "Be fully aware of what you're doing, and work becomes the yoga of work, play becomes the yoga of play, everyday living becomes the yoga of everyday living" (149).[139] This message of mental alertness is reinforced by a flock of mynah birds which fly around the island, reminding everyone to pay attention to the here and now, using the three catch-phrases they have been taught: "Attention", "Here and now, boys" and "Karuna" (meaning compassion). This omnipresent reinforcement of desirable behaviour is accepted by the population as a useful aid to their personal attempts to practice good everyday living.

The other important role for tantric yoga on Pala is population control. *Maithuna*, the yoga of love, as practised on Pala, is a method of birth control, described as being similar to the "Male Continence" of the Oneida Community. For those not able or willing to practice *maithuna*, there are free contraceptives provided by the government, but it is clear that for Huxley *maithuna* is the preferred method, because then sexual relations are not simply about sensual gratification but about enlightenment. In *The Devils of Loudon* (1952) Huxley talks about a sexual behaviour which "takes those who indulge in it to a lower level of subhumanity" (315). This kind of sexual activity is represented in *Island* by the sexual history of Will Farnaby, characterised by an addictive affair which led to the death of his wife in a car accident, and his own self-abasement through a sense of "alienations from love, from intelligence, from common decency, from all consciousness but that of an excruciating frenzy" (*Island* 79). In *The Devils of Loudon*, Huxley contrasts "the downward self-transcendence" of this kind of sexuality with the "upward self-transcendence" of Tantric yoga. Birth control through a kind of sacred, mindful sex is clearly superior in Huxley's hierarchy of values to the sex without consequences of contraception. On Pala, *maithuna* also facilitates Artificial Insemination, allowing couples to choose this method of procreation without impairing the social bonds of the monogamous relationships portrayed in *Island*. The deleterious effects of family life which

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[139] Jon Kabat-Zinn, who created the 8-week Mindfulness-Based Stress Reduction (MSBR) programme, studied under Buddhist teachers. Like Huxley he was interested in the scientific benefits of meditation, and tried to place mindfulness on a scientific basis, turning it into a form of cognitive behavioural therapy. For further information see Williams and Kabat-Zinn.

continue to haunt Huxley's characters are mitigated by a system of "Mutual Adoption Clubs", social groupings that allow for a larger, self-chosen family: "An inclusive, unpredestined and voluntary family" (90).

Despite these positive descriptions of family life, it cannot be denied that the supposedly enlightened cultural values of the population of Pala are in fact underpinned by psychedelic drugs, meditation, behavioural and chemical conditioning and the animal equivalent of hypnopedia, or as Baker puts it "a local space where utopian parrots police the population squawking moral imperatives" (257). Hanson argues that "In Huxley's utopia ... the use of biochemical and psychological techniques to shape the body politic is wholeheartedly endorsed" (128). However, this conclusion over-simplifies what to Huxley is a far more complex and liberating process. As with Skinner's operant conditioning, Huxley's Buddhist meditation techniques and holistic educational practices provide not just specific behaviourial routines, but an adaptable state of mind for ensuring social behaviour which fosters mutual respect and concern for the wider community as well as an anti-consumerist ethos. For Huxley, daily meditation, in conjunction with judicious use of psychedelic drugs, promotes self-knowledge "to the point where one won't be compelled by one's unconscious to do all the ugly, absurd, self-stultifying things that one so often finds oneself doing" (*Island* 184). It is an alternative intelligence to immunise the inhabitants of Pala from the challenges facing the modern world, where freedom and happiness are no longer easy to maintain due to what Huxley describes in the novel as "Mass production, mass slaughter, mass communication and above all, plain mass – more and more people in bigger and bigger slums or suburbs" (58).

The problem of more people, or population growth, was an issue that Huxley returned to repeatedly. Will Farnaby expresses the visceral side of Huxley's dislike of overpopulation when he observes the crowds in Fleet Street as so many maggots: "Thousands upon thousands of people, all on the move, and each of them unique, each of them the centre of the universe. Then the sun came out from behind a cloud. Everything was extraordinarily bright and clear; and suddenly, with an almost audible click, they were all maggots" (99). Like Julian West in *Looking Backward* who saw the people of nineteenth century Boston as living sepulchres, or John the Savage who is nauseated by the identikit twins of *Brave New World*, Farnaby's alienation is triggered by a sense

of undifferentiated humanity. For Huxley people en masse were either the hypnotised victims of demagogues, or as Farnaby suggests “little pale worms with black heads that one sees on rotten meat” (99), that is to say, parasites. Huxley also saw overpopulation as inextricably linked to environmental problems. In *Ape and Essence* (1948) Huxley forecasts overcrowding leading to: “Everywhere erosion, everywhere the leaching out of minerals. And the deserts spreading, the forests dwindling.” In “The Double Crisis” (1950) he argues that soil erosion from over-farming caused by rising populations is a greater threat to humanity than nuclear war, “atomic war may destroy one particular civilization ... soil erosion, if unchecked, can put an end to the possibility of any civilization whatsoever” (227). In *The Human Situation* (1959) Huxley returns to the question with even more urgency: “Finally, the unlimited increase in human numbers practically guarantees that our planetary resources will be destroyed and that within a hundred or two hundred years an immensely hypertrophied human species will have become a kind of cancer on this planet and will ruin the quasi-organism on which it lives” (62-63).

Huxley’s arguments linking overpopulation and environmental degradation, pre-figuring Ehrlich’s *Population Bomb*, contributed to the reputation of *Island* as an early ecotopia. In fact, Heinz Tschachler suggests that *Island* was “perhaps the first ecological utopia ever” (qtd. in Rohmann 177). Huxley was certainly one of the first to overtly incorporate ecological concepts into his analysis of the problematic relationship between humans and the natural environment, claiming in *Island* that ecology “has unveiled the basic facts that living organisms exist in exquisitely balanced communities and that this balance can be very easily upset” (40). For Huxley, ecology represented a new way of interacting with nature that was closer to the Oriental, and especially Taoist, concepts of nature, which privileged relationships over classification (42-43). In *Island*, ecology is both science and governing principle for scientific intervention. Children are taught ecology, at the same time as arithmetic, so that they understand from an early age that “all living is relationship” (211). They are also taught environmental ethics, which in Huxley’s words amount to: “Treat Nature well, and Nature will treat you well. Hurt or destroy Nature, and Nature will soon destroy you” (212). Huxley also makes an explicit link between ecology and Buddhism: “We shall be permitted to live on this planet only for as long as we treat all Nature with compassion and

intelligence. Elementary ecology leads straight to elementary Buddhism" (212). Huxley's interest in Buddhism and Eastern philosophy was undoubtedly part of the appeal of his writing for advocates of deep ecology.[140] Ecologist Bill Devall identifies the importance for the development of deep ecology of "the influx of Eastern spiritual traditions into the West", starting with the writings of Alan Watts and Daisetz Suzuki in the 1950s, and the influence on eco-philosophers such as Gary Snyder in the 1970s (128-29). Eastern philosophy was seen as important to deep ecology as it offered an alternative to Western Judeo-Christian dominant paradigm of nature as a resource to be exploited by humans.

Deep ecology also provides an important perspective for considering the relationship between technology, science and the environment in *Island*. The Palanese try to keep their use of technology to a minimum, using hydro-electricity, communal freezers, and small-scale technology for agricultural co-operatives and craft businesses. Low levels of industrialisation are facilitated by population control, and redirecting aspirations towards health and well-being instead of consumerism, defence spending and making money (211). There are no commercial banks, "no captains of industry or omnipotent financiers" (146) and no exploitation of oil reserves. However, the environmental credentials of New Rothamsted, Pala's agricultural station, are more dubious. New Rothamsted is named after the Rothamsted Experimental Station in Hertfordshire, where in the 1920s the eugenicist Ronald A. Fisher developed statistical methods to "help plan and evaluate plant and animal breeding experiments" (Kevles 181). Rothamsted was also known for its development of insecticides, and its long-running experiments into the effects of fertilisers on crop yield. Huxley's version: "Rothamsted-in-the-Tropics" also carries out experimental agriculture, delivering "new strains of rice and maize and millet and bread-fruit", "better breeds of cattle and chicken", not to mention "the first superphosphate factory East of Berlin" (83). Crop modification, fertilizers and animal breeding are all seen as justifiable measures to ensure the well-being of the population, regardless of their impact on the natural environment of Pala. Even though Huxley inveighs against humans as "Conquerors of Nature" (*Ape and Essence* 93) and criticises the destructive ideology of progress, the

[140] George Sessions includes Huxley in an inspirational pantheon of forerunners to deep ecology alongside Thoreau, Muir, D. H. Lawrence and Robinson Jeffers (ix).

scientific experimentation of Rothamsted, is legitimised for Huxley by being for the benefit of humanity, not for capitalist profit. Huxley was also slow to recognise the potentially damaging impact of pesticides, arguing in 1959 that insecticides were one of the most powerful weapons of public health (*Human* 52). In this respect he was out of step with Rachel Carson's *Silent Spring* (1962) which offered a damning indictment of the impact of pesticides on birds and other wildlife.

Huxley's islanders also express no ecological concerns over building roads and using old cars to link villages, or in developing a vigorous forestry industry to provide alternative outlets for the destructive energies of "muscle men". There is an implicit assumption that taming or civilising nature is important. Like many utopias, *Island* demonstrates a preference for human landscapes over the natural:

> Nature here was no longer merely natural; the landscape had been composed, had been reduced to its geometrical essences and rendered, by what in a painter would have been a miracle of virtuosity, in terms of these sinuous lines, these streaks of pure bright colour. (25)

Schmithausen argues that the early Huxley tended to prefer "cultivated, humanized landscape to wild Nature", but in his later works he was more concerned about "the protection of Nature (be it wild or cultivated) against its radical destruction by modern industrial civilization" (152, 163-64). However, when Huxley comes to write about the jungle in Pala it is still seen as suffocating: "The air was stiflingly damp and there was the hot, acrid smell of luxuriant green growth and of that other kind of life which is decay" (*Island* 153). By contrast, the man-made clearing in the jungle is suffused with light, and represented in terms of a pastoral idyll, or a scene from a Disney movie:

> Tall and broad-shouldered, half a dozen almost naked woodcutters were engaged in lopping the branches from a newly felled tree. In the sunshine hundreds of blue and amethyst butterflies chased one another, fluttering and soaring in an endless random dance. ... Near by a small tame deer, fine-limbed and elegantly dappled, was quietly grazing. (153)

In *Island*, the wilderness is predominantly represented as a challenge, to be tamed like the jungle, or used as a means of spiritual growth. Climbing mountains teaches the children of Pala "to realise the omnipresence of death, the essential precariousness of existence" and allows the potential bullies of

Huxley's physical stereotyping to work off aggression (159-60). Animals too are mainly seen as tools for human growth. The mynah birds are trained to deliver homilies, and a hawk flying above the forest is a reminder of empty space and "the Buddha Nature in all our perpetual perishing" (162).

It could be argued that Huxley mostly valued nature as a gateway to revelation rather than in its own right. In the *Doors of Perception*, Huxley includes "occasional glimpses, in nature, of Wordsworth's 'something far more deeply interfused'" (26) among his sources of contemplative inspiration. This view of nature as sacred or sublime is shared by the deep ecology movement, through the works of Thoreau, John Muir, Santayana, Aldo Leopold and many others.[141] On seeing an orchid, Muir, wrote "I never before saw a plant so full of life; so perfectly spiritual. It seemed pure enough for the throne of the Creator. I felt as if I were in the presence of a superior being" (qtd. in B. Taylor 30). Huxley similarly experienced, with the aid of mescalin, "a bunch of flowers shining with their own inner light and all but quivering under the pressure of the significance with which they were charged" (7). Muir though is looking at the living flower, while Huxley intuits "living light" and "breathing" from cut flowers that are already decaying. Muir also saw the American wilderness as sacred, and his missionary strategy was "to get people into the wild to listen to Earth's sacred voices" (31). Huxley, on the other hand valued wilderness mostly for the absence of people, writing in 1956: "A short generation ago you might have wandered and died within only a hundred miles of Los Angeles. Today the mounting tide of humanity has oozed through the intervening canyons and spilled out into the wide Mojave. Solitude is receding at the rate of four and a half kilometres per annum" (*Adonis* 77). In *Brave New World*, Huxley dealt with the problem of people spoiling wilderness by conditioning the majority of people to hate nature. Edward Abbey too sought spiritual truth in the desert, but failed to find any transcendental encounters: "I've looked and I've looked, tried fasting, drugs, meditation, religious experience, even self-mortification, but never seem to get any closer to basic reality than the lizard on a rock, a hawk in the sky, a dead pig in the sunshine" ("Preface" xii). Still, like Huxley, Abbey wanted to preserve the wilderness from the impact of people and industry, believing that

[141] Environmental academic Bron Taylor in his outline of the religious beliefs of activists, such as John Muir, Gary Snyder and Edward Abbey emphasises their spirituality and sense of the sacred in nature (29).

"A civilization which destroys what little remains of the wild, the spare, the original, is cutting itself off from its origins and betraying the principle of civilization itself" (*Desert* 169).

Despite his sincere interest in improving the relationship between humans and nature, Huxley remained at heart convinced that humans were custodians of nature, rather than equal partners. In a series of lectures in 1959, he suggests that humans have a right to control nature if they go about it in the right way:

> …it is only on condition that we act with love and knowledge that we can dominate nature. We must remember that man is a paradoxical creature: he is one with nature, but he is a completely unique animal inasmuch as he can become conscious of his position and inasmuch as he can influence nature in an enormous and sometimes terrifying way. (*Human* 42)

Huxley's ecological concerns tie in with an awareness of the power humans have over nature. He is interested in rebalancing this power, and the novel *Island* is an attempt at imagining this more harmonious relationship, beginning on the basis of the individual and their presence, here and now, in the material world, manifested as ecology. Huxley's personal ambivalence about the natural environment makes little difference to the ecological message of *Island* but his focus on nature as an amenity and inspiration for the human characters, suggests that, for him, even within an ecological context, utopianism is still essentially a human activity which privileges the human species over any other occupants of the planet.

Utopianism seems to be the appropriate mode in which to regard Huxley's later works, despite his continuing resistance to the concept of utopia. It would be reductive to consider *Island* as simply a re-treading of *Brave New World*. Many of the themes are the same, but the tone is different. It is an optimistic world of tantric yoga, spiritual development, ecological care and loving relationships. Pala does not survive as a political entity, but by depicting a society planning for its future through artificial insemination, improved populations and the enhanced family life of mutual adoption clubs, Huxley tricks us into seeing it as persisting into the future, capable of offering an example to the rest of the world of a non-consumerist society, living in equilibrium with nature through non-invasive technology and population control. Huxley destroys

Pala to demonstrate his realism, but also to move the concept of utopia from one specific island to the whole of the world. As he says in a letter, although *Island* remains a dream: “if we weren’t all so busy trying to do something else, we *could*, I believe, make this world a place fit for fully human beings to live in” (italics in original) (“Letter 944” 911). Part of Huxley’s optimism stemmed from his discovery of an alternative to repressive conditioning for achieving social improvement. Woodcock argues that in Huxley’s final years “he believed that he had discovered the way, through mystical discipline and the intelligent use of drugs, to give every man an equal chance of an enlightened existence, and so a Utopia based on a balance of the physical and spiritual, the temporal and eternal, seemed possible to him...” (173). Yet, Huxley still hankered after the idea of improved humans, intelligent enough not to pollute the planet or contribute to overpopulation. He retained faith in eugenics, albeit a voluntary version backed by peer pressure and artificial insemination. Regrettably, Huxley’s environmental credentials and the individualistic focus of his measures combine to give an air of acceptability to eugenics in this form, leading admirers to overlook this problematic element of the ecological utopia of Pala. In the next section, I consider whether Callenbach’s *Ecotopia* invites the same acceptance of eugenics, and how the changing cultural environment of the 1970s reframes eugenics as a pseudo-scientific anomaly with no connection to the exclusionist thinking of population control or racial segregation.

6.4 Back to Nature: Callenbach’s *Ecotopia*

The 1970s is often seen as a decade of utopian revival, spurred by the experimentalism of the counter-culture, the emergence of environmental activist movements and the rise of Second Wave feminism. As I argue, Skinner repositioned *Walden Two* as an ecological utopia for its reprint in 1976, while *Island* anticipated many of the ecological and spiritual concepts of deep ecology. Ernest Callenbach’s *Ecotopia* (1975) suggests by its very name its position as the apotheosis of the concept of the ecological utopia. However, the utopian fiction of the 1970s was not solely about environmental politics, as it was also the decade of the feminist critical utopia, notable for such works as Ursula K. Le Guin’s *The Dispossessed* (1974), Joanna Russ’s *The Female Man* (1975) and Marge Piercy’s *Woman on the Edge of Time* (1976). Moylan argues

that the revival of utopian fiction in the 1970s "was actually a transformation which involved the destruction of utopian writing as well as its preservation" (41). In this section, I consider whether *Ecotopia* fits into this paradigm of self-consciously critical utopias, or whether, as Moylan himself argues, *Ecotopia* represents "a lateral development" (xxi). I also assess to what extent *Ecotopia*'s policy of population control fits into the post-war-repositioning of eugenics, how the matriarchal elements of the Ecotopian political system relate to earlier feminist utopias, and the role of a nostalgia for Native American values in supporting the environmental ethos of Ecotopia.

Ernest Callenbach was working as an editor and film critic when he wrote *Ecotopia*. By his own account, the book took him three years to write and was rejected by numerous publishers before being self-published and becoming an underground classic ('Author's' 169). It was written in the context of "an exciting new burst of ecological research and technological innovation", early in what he describes as the transition of environmentalism to ecologism (169-70). The book grew out of an article Callenbach was writing on the scandal of sewage not being recycled, inspiring him to invent a society which took the principles of sustainability as seriously as the economic bottom-line (Callenbach, "Life"). *Ecotopia*, like *Walden Two* and *Island,* is set in a real and identifiable part of the world, a section of the Pacific North West from Washington State down to Northern California. Ecotopia, like Pala, is a closed society, following its secession from the USA, and the protagonist is also a journalist, Will Weston, who arrives on an assignment to describe life in Ecotopia for his American readership. The structure of the book is built around Weston's articles, interleaved with his personal diary which provides the account of his conversion to the Ecotopian way of life. Will Weston, like the Will of *Island*, has a dubious sexual history and owes much of his conversion to a restorative relationship with one of the local women.[142] The device of the newspaper articles though allows the dialogue between the utopian society and a future version of capitalist America to take place in these mini-essays rather than in conversation. This structure provides a useful gap between the state policies of Ecotopia and its inhabitants, making them seem far less didactic and more

[142] Heinz Tschachler points out that William Weston's name resembles both William Morris's William Guest and Edward Bellamy's Julian West (305). On the other hand, Michael S.Cummings sees the name as a "both an etymological and psychological amalgam" of Julian West and Will Farnaby (69).

diverse than the usual citizens of utopia. Will's initial resistance and gradual change is tracked in both his diaries and his articles, with the articles continuing to represent and satirise the capitalist, technocratic American viewpoint long after Will's culture shock has changed to admiration. This device neatly maintains the dialogue between the two alternatives without needing to invent excessively stubborn characters such as Frazier and Castle in *Walden Two*. However, the drawback to this approach is that the book reads more like a series of essays than a novel, or as German critic Heinz Tschachler suggests a political pamphlet or an example of "journalism engagé", leading to the "narrowing of the narrative distance between the implied author and the real author" (313). On the other hand, this bite-sized structure that recognises the hybrid nature of utopian fiction may well have contributed to its popularity as the ideas are readily accessible, and the narrative offers an easy emotional journey for the main character, as well as working well with Callenbach's strengths as a journalist and editor. It was certainly more successful than its sequel, *Ecotopia Emerging* (1981), written in the form of a conventional novel.

In the first of Callenbach's essays for *Ecotopia* he outlines the underlying concept of the Ecotopian state of phasing out harmful industrial processes and recycling "more than 99% of ... wastes" to reach a stable state (20). The Ecotopians have adopted something similar to the "Polluter Pays Principle" of current environmental regulation to incorporate any costs of clean-up into the calculation for manufacturing processes, arguing that "If … we had continued your practice of 'free' disposal of wastes in watercourses, sooner or later somebody else would have had to calculate (and bear) the costs of the resulting dead rivers and lakes" (18). The Ecotopians have also completely transformed their industrial base to work with biodegradable materials and cut out polluting industries to achieve this stable state. Callenbach commented in a 2006 talk that he used the term "stable state" in *Ecotopia* because "sustainability" was not used in the current sense until the 1980s (*Life*). Stable state also suggests "steady state", a key term in economics, and a term which is used interchangeably with "stable state" elsewhere in the book. Herman Daly, writing in 1977, saw steady-state economics as an economic system that moved away from the growth paradigm of classic economic theory and replaced "the basic premise of 'more is better' with the much sounder axiom that 'enough is best'" (96). His thesis was that technology could not solve the economic problem and

that it was important to recognise the impossibility of maintaining “an ever-growing standard of per capita consumption for an ever-growing world population” (98). Daly placed population control at the heart of his steady-state economics, arguing that the second law of thermodynamics made it impossible to effectively recycle the waste generated by growing populations. His argument echoes that of Garrett Hardin’s in “The Tragedy of the Commons” (1968). Hardin argued that the freedom to breed could no longer be seen as a right, but had to be regulated like other forms of land and property in order to preserve the common good. Regulation was necessary as appeals for voluntary restraint would only be effective amongst the conscientious, resulting in “elimination of conscience from the race” (1246). Instead, Hardin called for restrictions on breeding, arguing that the benefits would outweigh the reduction in freedom: “Individuals locked into the logic of the commons are free only to bring on universal ruin; once they see the necessity of mutual coercion they become free to pursue other goals” (1248).

In *Ecotopia*, population reduction is a formal goal, adopted following secession in order to “lessen pressure on resources and other species and to improve the comfort and amenity of life” (61), though not without opposition from economists and defence advocates, fearful of “national extinction”. The Ecotopian programme involved educating women in birth control and legalizing abortion, followed by radical changes to living arrangements to a more decentralised model that put responsibility for population levels back on local communities. Although there is no suggestion of a policy of one birth per death as in Marge Piercy’s *Woman on the Edge of Time*, there is clearly a much closer connection between local services and population levels, enabling “people to deliberately think about how they now wished to arrange their collective lives, and what this meant for population levels and distribution” (62). Callenbach paints a positive picture of gentle population decline, limited only by fears of attack by the numerically superior Americans. There are also a few radical thinkers who “believe that a proper population size would be the number of Indians who inhabited the territory before the Spaniards and Americans came” (63), a response motivated more by nostalgia for the American Indian way of life, than population concerns. This lack of unanimity and urgency over the population question, however, suggests that in Callenbach’s vision of a stable state economy, population reduction was not the pressing concern that it

is for either Hardin or Daly. One of the reasons for this relative lack of pressure is that Ecotopia operates in an economy of abundance rather than scarcity due to its highly fertile agricultural lands. Another factor is that the state continues to embrace technology to improve its environmental footfall. Daly argues for restricting technology in a steady-state economy to "the socially benign directions of small scale, decentralization, increased durability of products and increased long-run efficiency in the use of scarce resources..." (98). Although Ecotopia subscribes to these principles, there is also investment in larger-scale technology projects such as the biodegradable plastics industry, sewage recycling, energy-efficient transport and large-scale renewable energy projects.

Callenbach acknowledges Murray Bookchin's *Post-Scarcity Anarchism* (1971) as one of the influences on the development of *Ecotopia* ("Life"). Bookchin argued for the liberatory potential of modern technology to free people from work and material needs and allow industry to be structured on a more human scale around communities and regions. Bookchin also saw the potential for the new technology to "reawaken man's sense of dependence on the environment" (136), for example, through small-scale agriculture: "Relieved of toil by agricultural machines, communitarians will approach food cultivation with the same playful and creative attitude that men so often bring to gardening" (140). A similar approach is evident in Ecotopia. Ecotopians "do not feel 'separate' from their technology," but see it as springing, "like the human being, from the womb of nature, organically" (47). Worker collectives run most of industry, and work is limited to twenty hours a week, with permeable barriers between work and play. Every citizen is guaranteed the basic necessities of life, so there is no true poverty. Bookchin saw the reaction against consumerism in the youth culture of the 1960s as a sign of the promise of a post-scarcity generation: "The rising generation, that has been largely spared the scarcity psychosis of its parents, anticipates the development that lies ahead. In the outlook and praxis of young people, which range from tribalism to a sweeping affirmation of sensuousness, one finds those cultural prefigurations that point to a future utopia" (29). Callenbach has also adopted the characteristics of a post-scarcity society as described by Bookchin, incorporating spontaneity, sensuality, emotional openness, personal connectedness, tribal families and generosity into his vision for *Ecotopia*.

With population control only a minor problem in Callenbach's post-scarcity scenario, there is little evidence of concern about the quality and intelligence of the population that is so prevalent in *Island*. Eugenics is rejected as an extremist technology involving "the aiding of natural selection by deliberate breeding, or farther-out possibilities such as cloning, whereby actual genetic duplicates of superior individuals might be produced, or even modification of gene structures to produce a race of supermen" (65-66). Instead, the Ecotopians are described as being willing to live with the biological constitutions they now possess. However, these constitutions, as in most utopias, are visibly superior to those of their real-world counterparts. Ecotopians are described as being remarkably healthy, there are no "fat and broken-down people, and even oldsters seem surprisingly fit and hearty" (34). Ecotopians attribute their health to their active physical outdoors life, but there is more than a suggestion of female sexual selection at work. Women "exercise absolute control over their own bodies" allowing them to "openly exert a power which in other societies is covert or nonexistent: the right to select the fathers of their children" (64). This rule is so universal that Will is told, "sternly", that "No Ecotopian woman ever bears a child by a man she has not freely chosen" (64). As with Edward Bellamy and Charlotte Perkins Gilman, female selection of partners is important, and, it is implied, sufficient, for guaranteeing the quality of the next generation. Sexual favours are linked to the ritual War Games carried out at regular intervals where teams of men consciously adopt a primitive tribalism, adorn themselves with war paint and fight with spears until someone is injured or occasionally dies. The War Games have been set up by the largely female-dominated Survivalist Party to channel "the physical competitiveness that seemed to be inherent in man's biological programming" and allow them to test courage, strength and comradeship (74). By contrast, women's competitiveness is reserved for political contests, management and "rivalry over men to father their children" (75). Literary critic Naomi Jacobs questions the rationale for this gender divide, which she sees as inconsistent with the stated egalitarianism of Ecotopia, and as largely a result of Callenbach's inability to imagine women fighting (323). However, an alternative explanation would be to look at the War Games in the context of the nostalgia for Native American customs which suffuses the text. Ecotopians "envy the Indians their lost natural place in the American wilderness" (29), live as "tribal animals", hunt with bows

and arrows and let their children grow up “like happy savages”, learning basic survival skills ahead of the more conventional education of civilised society. They also feel a spiritual connection with nature. Will’s lover, Marissa Brightcloud, adopts a Native American name, and has a deep love for forests, which she sees as making her free (50), while Ecotopians in general “regard trees as being alive in almost a human sense” (58). Forestry is run not just to maintain stable-state conditions but to return forestry land to a perceived natural condition; hence any areas too difficult to work are assigned wilderness status. These attitudes to forestry fit with Tschachler’s argument that the function of the Ecotopian forestry service is “to mystically reconcile humanity to the creation”, an aspect of Ecotopia which he regards as a manifestation of “the schizophrenic attitude of Americans towards historical progress” (307).

Alongside this reversion to a Native American inspired primitivism, Callenbach is working with another myth, that of the matriarchal society.[143] Women are in charge of the ruling party and they infuse their values into society. *Ecotopia* adopts elements of a common myth of ecological feminism, here summarised by ecofeminist Val Plumwood:

> The story of a land where women live at peace with themselves and with the natural world is a recurrent theme of feminist utopias. This is a land where there is no hierarchy, among humans or between humans and animals, where people care for one another and for nature, where the earth and the forest retain their mystery, power and wholeness, where the power of technology and of military and economic forces does not rule the earth, or at least that part of it controlled by women. (7)

Within this myth of pre-industrial matriarchy, war games are masculine only because they represent aggression which is essentialised as patriarchal and masculine. Competitiveness, aggression and dominance are in this way contained and controlled by the women who reward the victors (Marissa gets carried off by a strong warrior) and heal the losers (Will has his own personal nurse after being injured in the games). A similar scenario of masculine games occurs in Katherine Burdekin’s matriarchal *The End of this Day’s Business* (1989) where infantilised men fight to impress the women. Callenbach’s version is less consistently matriarchal as the women also compete to win the best

[143] In his 2006 talk Callenbach happily acknowledges that Ecotopians could be accused of being matriarchal (“Life”).

men, though it is unclear what form this competition takes.[144] The overall result though is a society which, while not wishing to engage with eugenics in any medical or governmental sense, is very concerned about how it maintains survival characteristics such as strength and courage within the population. Intelligence, creativity and ingenuity, which are elsewhere celebrated as important characteristics of Ecotopian society, do not fit so well into this privileging of primitive "natural" characteristics, though Marissa claims to be attracted to Will by his intelligence and kindness, so these may be reflected as elements of the female selection process. Also the ability to entertain with song, dance and stories is valued as part of the fabric of Ecotopia's pseudo-tribal life.

The matriarchal element of *Ecotopia* is supported by Callenbach's focus on women as either attractively fertile or mothers. Will's assessment of Ecotopian women is that they "still seem to me feminine, with a relaxed air of their biological attractiveness, even fertility" (33), and he is tortured by the sounds and sights of uninhibited love-making going on around him. As well as being sexually confident and in absolute control of their fertility, women also take a dominant role in the early-years training of their children. Even though "men participate extensively in the care and upbringing of the very young," mothers have the final say in their nurturing (64). The widespread use of abortion as a contraceptive method might seem problematic for this picture of fertile and nurturing mothers, but Callenbach clearly views sexual freedom and female control over when and with whom they have children as priorities.[145] Also, anthropological evidence suggests that abortion was one of the most frequently used methods of fertility control in the majority of human societies (Cochrane 119). On a political level, Vera Allwen, the President is also represented as a mother figure for the whole country, or, as Will sees her, a domineering grandmother (149). The majority-female Survivalist party is modelled on what are held to be female values: "The basic cooperation- and biology-oriented policies of the party ... are usually considered to be derived mainly from female attitudes and interests" (83). These values are contrasted favourably with the "outdated and destructive male attitudes towards individualism, productivity, and related issues" of the Progressive Party who are

[144] This is one of the many examples that Jacob points out of the confusion between Callenbach's stated feminist ideals and the wish-fulfilment elements of the text.
[145] See Regina Cochrane, *Social Ecology and Reproductive Freedom* (1998) for a discussion of abortion and ecofeminism.

the chief opposition party. Female-centred government chiefly involves devolving power to ecologically-based regions or local communities, and a move away from nation states. There are also female-centred meetings, without agendas privileging attention to emotions and consensus decision-making. Ecotopians also see a special relationship between women and nature, and are trained to "treat the earth as a mother" (29).

Although qualities traditionally associated with women such as co-operation, emotional openness and nurturing are highly valued in Ecotopia, Callenbach also promotes an alternative ecological identity for men via a version of masculinity based on hunting, ritual battle and outdoor survival skills. The combination of these two strands of supposedly natural gender roles allows Callenbach to use primitive societies as the foundation for the values for Ecotopia, while still representing it as a modern society with equal rights for women and a positive relationship with modern technology. This cultural hybrid is important to Callenbach in a similar way as the mix of Western science and Eastern philosophy was for Huxley. Anthropologist Roy F. Ellen points out that by referring back to its Native American Indian heritage Ecotopia aligns itself with a potent myth that "primitive societies, shorn of the artifice of civilization, are in harmony with their environment through the wisdom of their folkways and that it is only the foolishness and wickedness of modern society that has rejected this" (8). Callenbach suggests that if the citizens of Ecotopia go back to this earlier way of life, which Ellen connects to the version of Native American spiritualism made famous by John G. Neihardt's classic book *Black Elk Speaks* (1932), and live in harmony with the land in the same way as American Indians did, then they will automatically live an environmentally sound life in tune with nature.[146]

These cultural values are important because, as political scientist Werner Christie Mathisen points out, "There is a strong general trend away from the exercise of formal political authority towards the use of culture as an instrument of social change and regulation" (66). The strength of this cultural transformation can be seen in the attitudes of the citizens, who are remarkably

[146] Deep ecologists too saw Native Americans as a potential source of knowledge about living with the natural environment, though not in the sense of "a revival of the Romantic view of Native Americans as 'noble savages' but rather an attempt to evaluate traditional religions, philosophies, and social organizations of Native Americans in objective, comparative and analytic, and critical ways" (Devall 129).

unanimous in their support for the changes necessitated by stable-state economics. Ecotopians have accepted a limited choice of food and consumer goods to simplify their industrial processes and reduce the impact of distribution. Many processed and packaged foods are banned for health reasons and others are put on local “Bad Practice lists”, leading to consumer boycotts. Sweatshop products from Asia are kept out by high tariffs, and many Ecotopians wear home-made clothes, “which has by now become considered a virtue” (93). Standardisation of products is the norm, in terms of packaging, sizes and even colours: “Bath towels, for instance, can be bought in only one color, white” (40). Unlike *Walden Two* and *Island*, where various forms of conditioning are used to ensure appropriate behaviours, *Ecotopia* relies largely on peer pressure and a strong culture of what Mathisen describes as “eco-political correctness” (71) to keep its citizens on track. Mathisen points out that this reliance on cultural rather than political measures leads to “a tendency towards political and cultural conformism” and the risk of a “totalitarian green culture” (69). Tschachler expresses similar concerns, suggesting that Ecotopia is “founded on an intolerance reminiscent of the Puritan theocracies of New England” (309) with happiness “enforced by what can only be called a mild form of mind control” (309). Tschachler also argues that Ecotopia is based on “despotic reason” where community interests have priority over those of the individual, introducing a reactionary element to the otherwise anarchic, organicist concept of life that Callenbach is hoping to portray. Nevertheless, Callenbach is aware of the potential restrictiveness of the stable-state concept as guiding principle. Bert, one of the journalists, argues that “in practice there’s no stable point.... we only agree on the root essentials, everything else is in dispute” (31). Ecotopian society is like a meadow where there is a lot of change going on at the micro-level, while sustaining itself on “a steady-state basis” overall (31). Tschachler argues, though, that this diversity is only counter-cultural window-dressing on a conformist society, an “eco-totalitarianism” which poses “a serious problem of authoritarianism” (310). However, by representing strong alternative cultural values through the love of wilderness, War Games and other survivalist activities, Callenbach manages to sidestep the impression of conformity, I argue. The banned lists of environmentally-unfriendly goods, the acceptance of reduced consumer choice and the DIY attitude to clothing, housing and other elements of life are simply outward signs of the new

environmental consciousness which manifests itself not as conformity but in the individual patterns that get dyed onto the plain white towels and the feral activities of the Ecotopians. Even though return to a more primitive way of living is represented as an extreme position in the Ecotopian polity, its appeal is evident throughout the text, and suggests an ideal that goes beyond the eking out of scarce resources and the "holier than thou" attitude of the environmental thought-police.[147] However, it does also leave Callenbach tied to a White American view of Native American culture. For example, Luther Standing Bear, an Oglala Sioux, debunks some of the myths that Callenbach uses: "Only to the white man was nature a 'wilderness' and only to him was the land 'infested' with 'wild' animals and 'savage' people. To us it was tame" (qtd. in Devall 130).

Also, by basing Ecotopian values on those of Native Americans, Callenbach compromises some important elements of an ecological community. Ecotopians hunt and kill, eat meat and wear fur, without there being any opposition to these activities or campaigns against animal cruelty. The Ecotopians accept gender stereotyping in the upbringing of children and in certain cultural institutions. They also support an isolationist nativism. Janet Fiskio, an environmental academic, compares the formation of an ideal society through exclusion in *Ecotopia* and *Herland*. In *Herland*, Gilman ensures an Aryan eugenic purity through isolation and the closed borders of Herland. In *Ecotopia*, the ghettoisation of ethnic minorities ensures a similar purity. Black Ecotopians have their own separatist community, referred to as Soul City. Soul City is characterised stereotypically as a producer of music, musicians, novels, movies and poetry, as well as experts in criminology, thanks to the large black prison population at secession, and culturally interested in African politics and language. The dream of reversion to Native American tradition is apparently only appropriate for white European settlers (Will guesses that Marissa is of Italian descent) while African Americans create their own culture which remains separate from mainstream Ecotopia. Fiskio also demonstrates that Ecotopia's bioregional model, and the defense of Ecotopia described in *Ecotopia Emerging,* draws a circle around "those who live in the geographical zone, justifying a politics of exclusion on environmental ground" (22). In *Ecotopia*

[147] Callenbach also wrote a short story "Chocco" anthologised in Kim Stanley Robinson's *Future Primitive* collection (1994) which depicts the indigenous population of North America defeating the invading European colonists.

Emerging the mountain passes are defended by Ecotopians to prevent invasion. In both texts, nuclear devices are hidden in major population centres in the US as a military deterrent, confirming the lengths that Ecotopians would go to protect their own ecologically-balanced paradise, even to the extent of destruction of the neighbouring ecosystem. There are no propaganda missions to establish revolution elsewhere and nothing like Castle's subversive dream of Walden-style communities proliferating throughout the United States. The Ecotopian have instead, as Fiskio argues, withdrawn to their lifeboat and will not allow the rest of the world on board.[148]

Callenbach's representation of *Ecotopia* as a successfully-achieved ecological society largely prevents the book from operating as a critical utopia. The dialogue between the capitalism of the United States and the eco-friendliness of Ecotopia is heavily slanted in favour of Ecotopia. Although Will's viewpoint occasionally raises questions about the desirability of certain Ecotopian habits, for example their extreme emotionality, the co-option of his voice into the satire against US excess makes it hard for his observations to count as criticism rather than culture shock. The only place where his questioning seems to escape satire is when he regrets the similarity between Ecotopian separatism and South African apartheid, writing "this admission that the races cannot live in harmony is surely one of the most disheartening developments in all of Ecotopia" (101). *Ecotopia*, for all its environmental credentials, does not have the self-awareness of the critical utopias of the 1970s identified by Moylan. These utopias show far more textual resistance to the utopian situation either through maintaining utopia as a fragmented or hypothetical state, as in Russ's *Female Man* and Piercy's *Woman on the Edge of Time*, or through characters who cannot conform to the utopian communities they live in, as for example in Le Guin's *The Dispossessed*, which is sub-titled "an ambiguous utopia", or in Samuel R. Delany's equally ambiguous heterotopia, *Triton* (1976). Michael Cummings regards the difference between *Ecotopia* and the traditional utopia in a different light, since for him its role is not to be critical of the ideas it presents, but to offer a practical handbook for would-be imitators. Cummings argues that Callenbach is "atypical of Utopian novelists'

[148] The lifeboat metaphor comes from another of Garrett Hardin's articles "Living on a lifeboat" (1974) which uses the metaphor of a lifeboat to argue against sharing resources needed for survival with those less well off.

almost universal indifference to the problem of how their utopias could actually be made to happen", pointing out that neither Bellamy nor Huxley make any serious or believable attempt to show how their utopian world could be brought into being. Callenbach on the other hand used *Ecotopia Emerging* as a "serious fictional attempt to outline a realistic transition to utopia" (69). Even though, Cummings concludes that the transition processes described by Callenbach were too naively simplistic to work, he sees them as a useful starting-point for future would-be utopianists to consider. *Ecotopia* is remarkable for its optimism, reminiscent of the late-nineteenth century heyday of utopianism. *Ecotopia* illustrates the strength of utopianism within the environmental activist movement, and the openness of this movement to practical utopian experiments on a small or large scale. Lynne F. Williams argues that ecotopian utopias "reflect a nostalgia for simpler times and the beauty of the natural world rather than the classical Utopian concern for the perfectibility of human society", but Callenbach's *Ecotopia* contains both nostalgia and the desire to develop a perfect sustainable society, in touch with nature, but able to lightly harness the environment to provide modern amenities through a range of technological innovations. The Ecotopians, like most citizens of utopia, are represented as being more perfect than average in that they are invariably mentally, sexually and physically healthy. This state, achieved through a process of female sexual selection, abortion of unwanted (and possibly imperfect) children and racial segregation, demonstrates the enduring concern with perfecting the human element of society, even in ecotopia.

6.5 Conclusion

Far from disappearing immediately after the Second World War, eugenics remained an important component of post-War society. The regrouping of the eugenics movement after the Second World War led to eugenic arguments reappearing in areas such as the population debate, where fears of accelerating birth rates were used to justify sterilisation programmes in the developing world (Hansen and King 201). In utopian fiction, eugenics became mainly light-touch positive eugenics, focussing on raising the quality of the population, either through genetic technology or the selection of appropriate partners, while using birth control and peer pressure to keep populations stable.

The severing of the link between biological parenthood and family life was seen as a key element in enabling eugenics to take on a less disruptive role in social relationships. In *Walden Two*, children are raised communally to make genetic parenthood less important. In *Island*, artificial insemination offers a means of increasing the genetic quality of the population without affecting people's freedom to choose the partners they prefer. In *Ecotopia,* large tribal families mean that children may be conceived by the best potential fathers without affecting who raises the child. The move away from the idea of a monolithic world state to smaller ecological communities represents a reaction against the totalising ideologies of the Second World War, and a return to biological science for inspiration for improved ways of living for human communities. *Walden Two* with its focus on behaviourism is still a scientific utopia in miniature, but with added influence from Thoreau and early understanding of the importance of working with the natural environment to achieve "trade-treaties with nature". Huxley's interest in the science of ecology, and Eastern mysticism, and his disillusion with the results of technocratic Western scientific progress allowed him to rework *Brave New World* as an ecological utopia and attempt to reconcile his pessimism over the direction of twentieth-century society with a recipe for mass social conditioning that drew on Buddhism and psychedelic enlightenment to provide stability without repressive social control. Callenbach's *Ecotopia* combines steady-state environmental economics with ecofeminism and a return to Native American values to provide a fully-developed picture of what an ecological society might look like. While all three of these utopias have provided inspiration for the environmental movement, and been acclaimed for their ecological principles, they also all privilege the human over the natural world and represent in one form or another, the continuation of the domination of nature by human social groups. They all show a strong concern with the survival of human-beings as a species, manifested in isolationism or measures to improve the intelligence or behaviour of the population. In the last analysis, and despite the environmental commitment of the individual authors, greater respect for the natural environment is largely a tactic to improve the quality of life for the human inhabitants of utopia. Utopian fiction remains in this new, more pastoral mode, still about the betterment of humans as individuals and species, and the improvement of their ability to live well together in social groupings, rather than the integration of human and non-humans on an equal

footing. Moreover, the tendency of ecotopian fiction to explore the future of humans as a biological species underlines the links between post-war eugenics and environmentalism. These works indicate how the frames of reference and assumptions that informed the eugenic agenda of earlier utopian fiction have been incorporated into new arguments for reproductive limits as the focus has shifted not only to improved humans, but to the future health of the planet.

7. Conclusion

This study of eugenics in utopian fiction shows the diverse ways in which eugenics has impacted on utopian fiction, the ubiquity of eugenics of some description in these works, and its persistence into the mid-twentieth century and beyond. Although writers of utopian fiction were not averse to echoing the rhetoric of eugenics, or accepting elements of its dogma such as class prejudice, racism and nationalism, my research shows that eugenics also formed part of wider discussions on concerns as diverse as democracy, social justice and gender equality. After Darwin, evolution offered hope of achieving utopia, but also fear of dehumanisation. Eugenics became one of the ways of dealing with questions of morality, teleology and survival of the fittest thrown up by the simplified version of evolution which entered into the public consciousness. Late-nineteenth-century writers of utopian fiction saw a positive future for eugenics as a means of promoting rational marriage, addressing issues of health and disease, and directing evolution into positive channels. Science and biology were referenced to back up their imaginings, but were rarely central to their ideas on eugenics, which tended to be symbolic, or else imbued with a Lamarckian concept of striving and purpose. Only Francis Galton, in his utopian college of Kantsaywhere, relied entirely on the workings of eugenics to improve the world. For most writers, eugenics took its place alongside social forces such as education, hygiene, fair wages and high standards of morality in the quest for an improved world. In particular, late-nineteenth-century writers promoted the importance of female choice of husband in improving the health and quality of the citizens of utopia. Samuel Butler, when he wrote *Erewhon* in 1872, did not imagine a specific role for women in improving the species, but he did believe that the beautiful and healthy should marry each other. However, later in the century, Edward Bellamy, Elizabeth Corbett and Charlotte Perkins Gilman all saw the socially sanctioned imbalance of power between the genders as a significant evolutionary misstep, and recommended that women be given more say in whom they married. Utopian fiction provided an arena away from the vested interests of governmental bodies and the restrictive social conventions of late-nineteenth-century society to articulate the concept that women could improve society through their moral and rational choice of husband, their determined

rejection of a diseased heritage, their family-centred values and the adoption of sensible scientific and hygienic measures to improve public health. Bellamy avoided the tendency of equating the poor with the eugenically unfit by putting the blame for poverty on capitalism and arguing that under a regime of brotherly love and equality everyone would thrive. Butler on the other hand played with the idea that illness was a crime, and anticipated a connection between morality and health that would be influential throughout the history of the eugenics movement. Wells agreed that whole classes of people would fall by the wayside as victims of evolution and the increasing sophistication of society, but his utopian and dystopian fiction offers a more complex picture of vitality in the working class and decadence in the upper echelons of society. Gilman too, despite elements of racism in her personal life, was opposed to nationalistic rivalry and recommended an America of hospitable welcome in the near-future utopia of *Moving the Mountain* (1911).

If early eugenic utopian fiction is largely uncritical of eugenics, and intent on domesticating evolution, and turning it into a force for moral development, early twentieth-century dystopian fiction begins to uncover the flaws in the eugenic proposals for human self-improvement; in particular, the curtailment of freedom in favour of social tractability. The eugenically moulded citizen is not so much the committed worker of Bellamy's future Boston or Gilman's *Moving the Mountain* as an industrial component, doped or drilled by the state in a necessary act of submission to the needs of stability. In these dystopias, reproduction is no longer a right, and children are a resource or a state commodity. Only Charlotte Haldane deals with the eugenic dream of breeding the advanced human, but offers a chilling picture of the fate of those who do not fit in with the progressive agenda of the new society. However, despite the personal sacrifices involved, Haldane does not question the value of the project. Even Katherine Burdekin, who criticises the nationalism and militarism of Nazi Germany in *Swastika Night* (1937), still hopes to see scientific changes abolish power imbalances between men and women. The ecotopian fiction of the post-war era is if anything less critical of eugenics than earlier works, suggesting that improving the human race is seen as important not just for social progress but for the health of the planet as a whole.

This study of utopian and dystopian fiction over the course of a century reveals two main areas of concern that it was hoped that eugenics would

address. The first and most persistent of these was the issue of procreation, and involved the desire to separate sex and reproduction so that children could be planned in a rational way. The second was about physical wellbeing, intelligence and the idea of conscious or self-directed evolution. In the following sections I consider these two areas, beginning with the issue of reproduction and its resurgence in the feminist utopian fiction of the 1970s, followed by an overview of ideas for overcoming the physical limitations of the human species. I conclude by examining more recent manifestations of eugenics in utopian fiction and society, and consider where the relationship between eugenics and modern versions of utopian fiction is heading.

7.1 Sexual Reproduction and the 1970s Feminist Utopia

Dissatisfaction with existing methods and mores of sexual reproduction is a surprisingly important theme in utopian fiction. Maybe because the marriage plot is so peripheral to utopian fiction compared to the mechanics of world-building, it is possible to deny the relevance of personal preference and consider changes to the established institutions of marriage, family and reproduction which would not be feasible in other forms of fiction. The focus in utopian fiction is on social changes, not individual destiny, and although the utopian visitor might be tempted to choose a utopian mate, this is usually a rhetorical device to emphasise the excellence of utopia, rather than a key component of the narrative. Instead, what counts are the larger changes to society, the management of the physical realities of human life in the service of the state or the common good. In amongst these changes, the management of sex and reproduction are the subjects of radical proposals, especially in feminist utopian fiction. Where New Woman fiction promoted rational reproduction as part of the marriage plot, feminist utopian fiction takes this idea a step further by rationalising sex out of the reproductive process altogether. Writers such as Mary E. Bradley Lane and Charlotte Perkins Gilman abolished men's role in reproduction, turning erotic desire into non-sexual love of a higher kind. In *Unveiling a Parallel* (1893) Jones and Merchant condemned sexual license and offered a picture of a people so spiritually evolved that their children are conceived in what they describe as "immaculate purity", the result of a century long struggle to eliminate lust and "the purely animal instincts" (58-9). Kathryn

Burdekin also saw evolution as a way out of the problem of sexual inequality, envisaging in *Proud Man* (1934) a future where both sexual desire and gender had been abolished. For male writers such as Aldous Huxley, the decoupling of sex and reproduction is seen in a more dystopian light. In *Brave New World* (1932) babies have become a factory product and sex is meaningless, while in Zamyatin's *We* (1924) the rationalisation of sex has become part of the repressive techniques of the government. However, in *Island* (1962) Huxley reverses the sexual equation and sees artificial insemination as an opportunity for people to be sexually intimate without having to worry about the genetic consequences. However, Huxley continued to feel uneasy about the idea of sex for mere gratification of sensual pleasure and replaced procreation with spiritual enlightenment as the purpose of sex. In nineteenth-century America, the Oneida Community also saw sex as part of a process of spiritual enlightenment, and developed their own techniques for preventing conception, voluntarily sacrificing reproductive rights for the eugenic improvement of the next generation.

Latent within this dream is the desire to evolve humans beyond the needs of the body towards a form of moral perfection and self-transcendence. As Jones and Merchant write: "God planted the species, a crude and simple plant, and turned it over to man to do what he might with it; and in the same way he placed man himself here, – to perfect himself if he would" (Unveiling 151). In the US this concept can be linked to the philosophy of Perfectionism, often ascribed to Emerson, and seen as an ongoing process of improvement and self-realisation.[149] British writers also show perfectionist tendencies; for example, the women of Corbett's *New Amazonia* are seeking spiritual improvement at the same time as caring for their social environment.

Clearly for some writers of utopian fiction, a world without sexual activity was utopian in itself, and for the rest, the less connection there was between the sexual act and the production of children the better.[150] Children born from non-sexual love would have none of the disadvantages of sexually transmitted

[149] For an account of Emersonian moral perfection see Naoko Saito *The Gleam of Light: Moral Perfectionism and Education in Dewey and Emerson*.

[150] Jyotsna A. Gupta suggests that "In fact what is dystopia for men might be eutopia for (some) women and vice versa eg the destruction of the family and the use of reproductive engineering are viewed as negative features by Huxley, whereas for [Shulamith] Firestone these are positive elements" (86)

diseases or other degenerate features and would only be produced at need. In the end, eugenics offered two hopes, scientific methods to rationalise choice of marriage partners, and accelerated evolution towards a state where sexual desire was no longer a factor in the human condition. For feminists, eugenics offered not just the chance of producing better children, but the chance of changing how children were produced. The interest in parthenogenesis suggests a hope for a cloning or propagation process that would leave women free to be socially active around the demands of motherhood, while Gilman's arguments for changing patterns of childcare, and Burdekin's interest in androgyny, support alternative modes of social organisation based on rejecting the idea of women being exclusively responsible for the birth and raising of children.

The continuing interest in alternative versions of reproduction in the late twentieth century can be seen in the ongoing importance of these ideas in the feminist science fictional utopias of the 1970s and 1980s. This revival of feminist utopianism suggests that some of the issues raised in earlier feminist utopias still needed to be resolved. Women had gained the vote, could control when they had children through contraception and had many of the same educational and career opportunities as men. But Second Wave feminism was still confronted with issues of discrimination, gender identity, patriarchal assumptions, male social dominance, and not least the whole question of women's reproductive role. Feminist Shulamith Firestone writing in 1970 recommended a revolution in gender roles in which "[t]he reproduction of the species by one sex for the benefit of both would be replaced by (at least the option) of artificial reproduction: children would be born to both sexes equally, or independently of either, however one chooses to look at it all" (19). Monique Wittig, author of the lesbian feminist separatist utopia *Les Guérillères* (1969), also contested the biologisation of women's identity. In a 1981 essay, she argued that women collude in their oppression by naturalizing oppressive social phenomena such as childbirth: "instead of seeing giving birth as a forced production, we see it as a "natural," "biological" process, forgetting that in our societies births are planned (demography), forgetting that we ourselves are programmed to produce children, while this is the only social activity 'short of war' that presents such a great danger of death" ("One" 11). For Wittig, lesbianism is a way of escaping the masculine definition of women as

reproductive machines. Critic Frances Bartkowski argues that with Wittig "Finally lesbian feminism emerged as a strategy to break away from previous definitions of sex as allied to reproduction" (33).

Les Guérillères foregrounds women's erotic pleasure, but also recommends active opposition to masculine oppression in order to reclaim female identity. Wittig's female warriors have no compunction about using violence to fight for their freedom, unlike the female protagonists of other feminist utopias of the 1970s and 1980s where violence is represented as a specifically masculine trait. Anne Maxwell argues that one of the motivations for women writing science fictional utopias in the 1970s and 1980s was to address issues of the violence of male-dominated political systems. She credits the reprint of Gilman's *Herland* in 1979 with influencing feminist writers to believe that women are inherently less violent than men, arguing that "Gilman was suggesting that it is only the male of the species who harbours the violent tendencies that have historically placed civilisations at risk" ("Problem" 111). Erin McKenna also sees opposition to violence as a key element of 1970s and 1980s feminist utopias, defining them as based on the belief "that the subordination of women is wrong" and with a "focus on ridding the world of violence, especially male violence" (10). Bartkowski also emphasises the separatist element of feminist utopias, arguing that although 1970s Western feminism grew out of left-wing politics "one of its first moves was to reject the masculinist or phallocentric orientation of these movements" (25). These elements of separatism and concern over male violence led to a renewed interest in the idea of genetic modification of the reproductive role, not only for freeing women to take an equal role in society, but to suppress violence in men and make them more like women. Ursula Le Guin in *The Left Hand of Darkness* (1969) imagined an androgynous species which only took on gendered characteristics during short periods of sexual activity. In this society, resulting from a genetic experiment, there is no gender division or discrimination, and no large-scale war. Le Guin speculates: "did they [the experimenters] consider war to be a purely masculine displacement-activity, a vast Rape, and therefore in their experiment eliminate the masculinity that rapes and the feminity that is raped?" (77-8). Le Guin's solution of genetic modification implies an essentialist view of gender characteristics, but the development of the novel questions this reading, suggesting that in the end, humans are not primarily defined by gender

and sexual desire, but by the choices they make and the social forces around them.

Marge Piercy's *Woman on the Edge of Time* (1976) also starts from a premise of violence of men towards women. However, Piercy's solution is not androgyny, but co-operation. Like Skinner and Huxley, she looks to small-scale communities, psychological techniques and genetic modification to achieve peaceful communal co-existence. In Piercy's future utopian community the power struggle between men and women is resolved by women giving up natural childbirth, and both men and women sharing equally in parenting. Babies are gestated in a "brooder" from a mix of genetic material from many different races, representing a return to the original American idealism of the melting pot. There is also an ongoing debate about the use of eugenics. One party, the Shapers, want to build on existing genetic intervention to prevent birth defects and susceptibility to diseases by breeding for selected traits, while their opponents, the Mixers, believe that it is not possible to "know objectively how people should become" (226). Piercy's characters support the Mixers, and the dangers of eugenics are further reinforced in a chapter where Connie, the main character, is projected into a dystopian future where reproductive control goes far beyond small eugenic improvements to the embryos. In this alternative future, women are kept on contract by men for sex, or else become mothers who are "cored to make babies all the time", then euthanized after they reach forty (290). Meanwhile, the "richies" live on space platforms above the polluted earth and are genetically enhanced and medically assisted to live for two hundred years. The very poor are simply considered as diseased animals (291). This scenario is represented as the logical end-result of experiments in biochemical control of the medically disempowered population of the asylum to which Connie has been committed. For Piercy, this escalation of the chemical conditioning of parts of the population, under a similar rationale to that used by Huxley in *Island*, for social and individual well-being, is shown as dangerous enough to require violent resistance. However, by introducing violence, Piercy also problematises her argument, leaving open the question of whether Connie's violence confirms the original diagnosis of her as a risk to the community. Nevertheless it also points out the consequences of medicalising those who are powerless, and the ethical unacceptability of experimenting on the mentally vulnerable.

In Suzy McKee Charnas's *Walk to the End of the Road* (1974) and *Motherlines* (1978), separatist societies come about as a result of "The Wasting", an ecological catastrophe brought on by pollution and war. In *Walk*, women are treated as animals, and used to serve men, not just sexually, but as a slave population for all labouring jobs. Like Burdekin, Charnas shows the link between cultures of aggressive masculinity and the dehumanisation of women, enhanced by the adoption of agricultural-style breeding practices which devalue children by referring to them as 'kits' and 'cubs'. Men too are dehumanised. In a dark replica of Huxley's graduation ritual on Pala, boys are given drugs, and those who prove too susceptible to their effects are condemned to become human "hounds", controlled by their handlers through their drugs addiction. The destructive masculine way of life is contrasted with two all-female communities in *Motherlines*. The "free fems", escaped slaves, recreate many of the hierarchies and patterns of control of the masculine society from which they have escaped. On the other hand, the Riding Women, independent survivors of the ecological catastrophe have built up a society where they live in harmony with nature, hunting and gathering and moving with the seasons. However, their way of life is dependent on genetic engineering, the technology that enables them to breed without men. They are products of a laboratory experiment in cloning and have genetically altered their horses to provide the serum needed to stimulate reproduction, through a carefully managed mating process. The children are not horse/women hybrids, as the complete genetic information for their reproduction is contained in the egg. Instead, the women produce genetic replicas of themselves which form the Motherlines of the title. Diversity comes from societal arrangements which split the women into tribes and co-mothering groups. Charnas provides for an element of natural selection through the "childpack" in which the children live till adolescence, growing up like wild animals on the margins of the tribe. This process allows only the fit to survive, thus ensuring the health of the future propagators of the Motherline. Even so, some Motherlines have been lost, and the women although socially viable are in need of new genetic material to improve their diversity.

Despite the artificial origin of their reproductive strategies, the women live a very environmental lifestyle and welcome the role of the horses in their reproductive cycle as a reminder of their place in nature. In this way, Charnas suggests that genetic technology does not have to be anti-nature. In her

representation of two complex but far from perfect all-female societies she also resists the gender essentialism of other feminist utopian fiction, such as Sally Miller Gearhart's *The Wanderground* (1979). In *The Wanderground* the earth itself is said to have revolted against male violence, forestalling male potency outside the City, and allowing women to develop new powers such as flying and the ability to communicate with animals through their close relationship with nature. Male violence is represented as intrinsic to male sexuality: "It is not in his nature not to rape. It is not in my nature to be raped. We do not co-exist" (26). Reproduction is carried out without men, not through biotechnology, but in an extension of the women's new natural powers, a process of egg-merging and implantation, taking place deep within the earth. Mario Klarer comments that "This blood and earth romanticism is a leitmotif in a number of ecofeminist publications. Women extract their power out of nature, which resembles a living organism made of flesh and blood" (327).

The feminist utopias of the 1970s provide an example of the debate between social constructivist views of gender as represented by Firestone and Wittig and the essentialist views of some ecofeminists such as Gearhart. In denying that reproduction is the "natural" role of women, and replacing childbirth with technology, feminist utopias can be seen as accepting masculine-centred values of scientific domination of nature, while the claim of a privileged position for women in relation to nature implies acceptance of the essentialist rhetoric of women as biologically and culturally different from men. Australian feminist Elizabeth Grosz sums up the dilemma for feminism of both positions: either it avoids "essentialist and universalist categories (in which case its rationale as a political struggle centered around women is problematized); or it accepts the limitations patriarchy imposes on its conceptual schemas and models and abandons the attempt to provide autonomous, self-defined terms in which to describe women and femininity" (55). However, Donna J. Haraway's concept of the cyborg offers an alternative strategy for linking technology and nature. In "A Cyborg Manifesto", written in the 1980s and later forming part of her influential book *Simians, Cyborgs and Women: The Reinvention of Nature* (1991), Haraway appropriates the idea of the cyborg, part-animal and part-machine, as a feminist icon. She sees the cyborg as "a creature in a post-gender world" where "[c]yborg replication is uncoupled from organic reproduction" (150). Haraway plays with the image of the cyborg to escape from dualism but also to

affirm an iconoclastic belief in feminist science and technology. Cyborg imagery also helps avoid metaphors of rebirth based on ideas of reproduction. Instead the cyborg evokes concepts of regrowth and regeneration in order to arrive at what Haraway describes as “the utopian dream of the hope for a monstrous world without gender” (181). Haraway illustrates this concept with examples of monstrous hybrids in the work of feminist science fiction, including Joanna Russ, Octavia Butler and Vonda McIntyre, but she could just as easily included the hermaphrodite protagonist of Burdekin’s *Proud Man*, or Charnas’s biotech-enhanced horse-bred Riding Women. Even though the idea of parthenogenesis developed by earlier utopian feminists invoked a different set of imagery to that of the cyborg, featuring as it did virginal superwomen, supremely competent whether as mothers, rulers or scientists, these fictional constructs offer a similar disruption to the idea of women as being solely defined by their fertility or their relationship to men. The difference being was that the hybrid in question was not that of animals and machine, but that of women and their spiritual self, striving towards the asexual perfection of fairy folk or goddesses.

7.2 More than Human: Perfect bodies and Perfect minds

Even though the rejection of sexual reproduction by feminist writers of utopian fiction suggests a desire to transcend the concerns of the body, perfect bodies and physical well-being remain an important theme in utopian fiction. The ableist prejudices of eugenics are very visible in utopia, where one of the markers of a good society is that everyone is healthy and beautiful. As noted above, Samuel Butler in *Erewhon* promoted a religion of good health and suggested that to be diseased was to be criminal. In Elizabeth Corbett’s *New Amazonia*, the health of society is equated with its high moral standards. In Jones and Merchant’s utopian society of Caskia “Perfect health and longevity are among the rewards of right living practiced from generation to generation” (117). Disease is also largely absent in utopian fiction, either cured by science, or, as Gilman asserts in *Moving the Mountain* (1911), eradicated through improved hygiene, knowledge and cures. Ernst Bloch attributes this absence of disease in utopia to the ancient Greek idea of health as natural balance, and disease as disruption to this balance (463-4). This idea of good health being natural is certainly true of Gilman’s utopia where her chief concern is over

sexually transmitted diseases such as syphilis and gonorrhoea. A tough regime of medical-record-keeping ensures that men cannot marry without a clean bill of health, and doctors are obliged to report any incidents of STDs. Moreover, with disease eradicated, the full force of the medical establishment of *Moving the Mountain* is directed towards curing those previously seen as either insane or criminal. By focusing on sexually transmitted disease and curing criminals, Gilman is reinforcing the moral dimension of illness at the expense of its medical reality and suggesting that ill health can be cured through improving standards of morality, and that criminality is just another form of illness.

On the other hand, Bellamy's future Boston in *Looking Backward* (1888) is unusual in having an identifiable body of sick people, who are not quietly shuffled out of existence. For Bellamy, it is important that the sick have the same rights and responsibilities as the able-bodied: "A solution which leaves an unaccounted-for residuum is no solution at all; and our solution of the problem of human society would have been none at all had it left the lame, the sick, and the blind outside with the beasts, to fare as they might" (135). However, there is no attempt made at curing sick people because so long as the society as a whole is healthy, then it does not matter that individuals within it are less able. Eugenics contributed to the utopian belief that all forms of ill-health could be bred out of the population through restricting the unhealthy from breeding. In utopian fiction, no-one attempts to cure bodies, only spirit, morals and criminal tendencies. The conclusion is that the eugenically enhanced humans of the future will be perfect in body, mind and morality. Corbett's rejuvenation process is only allowed because the New Amazonians live in what she describes as "the most perfect, the most prosperous and the most moral community in existence" (47).

If physical health was a symbol of moral health, there remained a more practical element to the utopian concern with breeding better people, that of ensuring that humans were intelligent enough to survive into the future. Wells feared that humans would be out-evolved by other species, and believed that evolution would eliminate whole races or classes of people who were not up to scratch in the task of surviving in the modern world. Aldous Huxley feared that without intelligence the world would fall prey to dictators and mindless consumerism, and that human stupidity would lead to nuclear war, pollution, overpopulation and other threats to the human ecosystem. Huxley nonetheless

recognised that a society run by highly intelligent people, such as the Alphas of *Brave New World* would be very unstable. Instead, in *Brave New World*, stability is ensured though engineering the mix of intelligence required for different roles, and using drugs and conditioning to take the place of citizenship. In *Island*, a more holistic approach to education is taken, with meditation offering a different type of intelligence, one that provides resistance to dictatorship for people of all levels of intelligence. In Skinner's *Walden Two*, social conditioning plays a similar role in helping people to live together effectively and eliminate anti-social competitive instincts.

Right from the beginning, Galton framed eugenics as a matter of intelligence, concentrating initially on the question of genius and how to provide more intelligent leaders to deal with the increasing problems of governing the late-nineteenth-century world. While Wells rejected the idea of the great leader and the dictatorship of the Nietzschean Overman represented by Ostrog in *When the Sleeper Wakes* (1899), he still recommended an elite group of intelligent technocrats to lead society, such as his Samurai of *A Modern Utopia* (1905). For feminist writers, it was taken as given that women would avoid the stupidity of men, though not so much through intelligence as common sense, high moral ideals and hard work; while Bellamy saw the death of capitalism and the pooling of labour for the common good as providing a social intelligence that would ensure the continuing improvement of society. Gilman too was less concerned with the intelligence of individuals and more interested in what she called social evolution, the ability of society as a whole to learn and progress. For her, collective intelligence would be boosted not just through eugenics, but education, though as her concerns over immigration grew, so did her interest in the quality of the population.

Intelligence was also seen as crucial to scientific progress and the control of nature in the interest of human development. This belief in scientific progress and the necessity of humans having the means of controlling the natural environment runs through much of the utopian fiction in this study, from Corbett's scientifically managed society of New Amazonia to Callenbach's ecologically ingenious Ecotopia. Butler may have feared what scientific progress would bring, in the shape of a world run by machines, but also recognised that human progress came from adaptation of mechanical aids, which had taken humans from the level of mere survival to civilisations that

support culture and science. The application of human intelligence to evolution is important because it shows how deeply embedded the idea of human domination of the natural world actually was. Evolution is seen as a positive force by Bellamy and Gilman, even though temporarily perverted by capitalism and patriarchy. Evolution is right because it is natural, but it is also a legitimate tool for humans to use to achieve their domination over nature. Charlotte Haldane's *Man's World* (1926) is based on a scientific culture which values intelligence and sees no limits to the marriage of science and evolution to ensure human progress. The ideological conviction that humans belong at the top of the natural hierarchy remains strong in utopian fiction and fuels the idea of destiny, that it is right for people to keep developing to retain their position of power against other natural competitors.

This urge to improve on the biologically-constrained human animal has continued to be expressed in the twenty-first century through movements such as transhumanism and posthumanism. Both movements consider the potential to genetically engineer humans beyond the current physical and intellectual limitations of human existence, and implement what transhumanist Zoltan Istvan describes in the fictional *Transhumanist Wager* (2013) as an attempt to achieve immortality. According to Robert Ranisch and Stefan Lorenz Sorgner in *Post- and Transhumanism: An Introduction* (2014), transhumanism involves "the radical transformation of human's biological capacities and social conditions by means of technologies", whereas posthumanism is the replacement of humans, whether as "a new biological species, a cybernetic organism, or even a digital, disembodied entity" (8). Transhumanism is sometimes seen as an abbreviation of transitional human (8), but the term as coined by Julian Huxley in 1957 relates more to transcendence than transition. Julian Huxley wrote: "The human species can, if it wishes, transcend itself. ... We need a name for this new belief. Perhaps transhumanism will serve: man remaining man, but transcending himself, by realizing new possibilities of and for his human nature" (17). Transhumanists are not a homogenous group, but they do take their guiding principles from "The Transhumanist Declaration", available on the Humanity + website, which offers an endorsement of using science and technology to realise human potential through the development of techniques to assist mental energy, life extension therapies, reproductive choice and cryonics. The UK Transhumanist Association's website is more forthright in

its declaration that “It is the proper business of human beings to seek to improve themselves.” While eugenics per se does not feature in their proposals, they do include references to genetic developments in stem cell therapy and cloning. The dream of directing evolution lives on in the Transhumanist wish “to see an end to the tyranny of nature over humankind” and “the development of technologies that will enable us to transform our bodies and brains so that they are more powerful, more flexible, and longer-lasting that our current ones, which are the product of blind evolution and can be immensely improved upon with the right knowledge and some good design.”

Transhumanists are also interested in the whole area of artificial intelligence (AI) and the idea of the technological singularity. The Singularity, as popularised by Ray Kurzweil in *The Singularity is Near: When Humans Transcend Biology* (2005), is the point at which machine intelligence will outstrip the totality of human intelligence. Kurzweil’s ideas involve a grandiose conception of the future:

> The Singularity will allow us to transcend these limitations of our biological bodies and brains. We will gain power over our fates. Our mortality will be in our own hands… We will fully understand human thinking and will vastly extend and expand its reach. By the end of this century, the non-biological portion of our intelligence will be trillions of trillions of times more powerful than unaided human intelligence. (9)

Kurzweil sees The Singularity as helping to correct “the profound limitations of biological evolution” (21). He contrast the biological evolution of humans which “takes tens of thousands of years to make noticeable, albeit still small, differences” with “[c]urrent progress” which “is on a scale that is a thousand to a million times faster than biological evolution” (94). But whatever else changes, human exceptionalism lives on in the post-Singularity world: “Whether our civilization infuses the rest of the universe with its creativity and intelligence quickly or slowly depends on its immutability. In any event the “dumb” matter and mechanisms of the universe will be transformed into exquisitely sublime forms of intelligence, which will constitute the sixth epoch in the evolution of patterns of information” (21).

Whereas the interest of transhumanists in scientific progress aligns them with Enlightenment humanism, posthumanists tend to challenge the humanistic ideology of Western civilisation. Posthumanist philosopher Francesca Ferrando

describes posthumanism as having a “post-anthropocentric and post dualistic” approach (27) with its roots in early postmodernism, and embraced by both feminist theorists and cultural studies (29). Feminists such as Donna Haraway and N. Katherine Hayles are interested in how posthumanism can escape privileging the category of human above other forms of being. Hayles regards posthumanism as rejecting the importance of human embodiment, other than as a means of connecting to intelligent machines: “In the posthuman, there are not essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals”(3). Although Hayles is concerned about the posthumanist erasure of embodiment in relation to the liberal humanist tendency to ignore the body in favour of the rational mind, she believes that the posthuman partnership between humans and intelligent machines offers the possibility of replacing “the liberal humanist subject’s manifest destiny to dominate and control nature” (288). Posthumanism has become popular in cultural studies, where it offers a way of decentering the human and challenges humanism itself and the Enlightenment scientific values that underpin it. Kim Toffoletti argues that posthuman images appeal because they are “contradictory and unstable”, rather than “because they transcend the body or offer a better version of human existence” (4). Cultural critics Judith Halberstam and Ira Livingston ask “Are posthuman bodies postgender?” (8), returning to the questions raised by Haraway and the concept of the cyborg.

The writers of nineteenth- and twentieth-century utopian fiction discussed in this thesis mainly subscribes to the same scientific rationalist tradition of human improvement as transhumanism. Feminist utopias of the late-nineteenth and early-twentieth century broaden the definition of human from primarily meaning men to claim a place for women in this category, often at the expense of animals and nature. Ecotopias allow a role for nature, but still at a subsidiary to level to humans. Posthumanism is largely regarded in a negative light in these works, as a threat to what makes human beings human. Samuel Butler’s image of the posthuman sees humans superseded by machines, while Zamyatin’s fantasiectomy dehumanises people in a far from playful manner. A more positive view of the aspirant post-human is provided by Jones and Merchant whose Caskians are well on the way to achieving post-human status through spiritual transcendence. But even they are described as lacking in

imagination and emotional intensity. Burdekin's androgynous hero of *Proud Man* is a posthuman from our future, who considers the humans of Burdekin's time as subhuman. To be fully human in his/ her view is to have a unified mind, "permanently welded into one piece" which leaves no room for dreaming since they have "neither fears, nor unfulfilled wishes, nor conflict" (14). For writers of utopian fiction, the posthuman is a state beyond desire, which can only be reached by sacrificing part of what makes us human, even if the human is still imperfect. Popular representations of the post-human show that this ambivalence over the posthuman continues. The film *The Lobster* (Yorgos Lanthimos 2015), in which humans are forcibly turned into animals if they are not part of a couple, uses monstrous and boundary-breaking transformations to interrogate ideas about relationships, while the alien protagonist of Michel Faber's *Under the Skin* (2000), played by Scarlett Johansson in the 2013 film adaptation, offers full-on body horror, epitomising the sense of attraction and fear around the figure of the posthuman. The many recent film and TV representations of androids and artificial intelligence, such as Alex Garland's *Ex Machina* (2015), *Humans* (Channel 4 2015-2016) and *Westworld* (HBO 2016) shows the continuing fascination and concern over our potential posthuman successors. The dilemma that the posthuman addresses is one that both Freud and Heidegger touch on, which is that the technology that has enabled humans to take control of nature now threatens to take control of humans themselves. Toffoletti argues that Heidegger's essay on the "The question concerning technology" (1955) "taps into the fear that humans will become powerless because they are no longer able to fully control either technology or nature.... A point of crisis ensues for the subject as the humans increasingly rely on technology to control the unpredictable forces of nature, yet concurrently, the 'other-than-human' machine poses a threat to our very existence" (11-12). The trajectory of utopian fiction from the late-nineteenth century onwards suggests that the ambivalence over the wish to improve humans, and the desire to remain fully human is never adequately resolved. Utopian humans are better than their present day counterparts, and while they strive towards a future state of posthuman or transhuman perfection, they never fully resolve the problems of what this future state of being more than human state will involve.

7.3 Some Final Thoughts

Refracted through the prism of utopia, eugenics becomes not so much about breeding better people as resolving the problems of embodiment. People are stupid and get ill. Reproduction is messy. Sexual desire is irrational. Utopian eugenics reaches forward to a transhuman alterity which will deal with these problems, replacing religious versions of spiritual development with scientific ideas of evolution, resulting in a bizarre mix of the biological and the transcendent. Patrick Parrinder in his recent book *Utopian Literature and Science from the Scientific Revolution to Brave New World and Beyond* (2015) argues that one of the distinguishing features of the modern utopia is lack of interest in "spiritual or other-worldly goals" (5). However, late-nineteenth century feminist utopias continue to remain far from modern in this respect, as does the post-war utopianism of Huxley, Skinner and Callenbach. The purpose of the ideal state for Huxley is to support spiritual growth, a distinction which he makes through the contrast between the soul-destroying satisfaction of physical needs in *Brave New World* and the anti-consumerist, life-affirming meditative practices of *Island*. Skinner's *Walden Two* similarly rejects materialism and consumerism for more wholesome pursuits of knowledge, and artistic and physical excellence. The eugenic concerns of these texts represent an ambition for utopia to encompass more than simple hedonism, with the pursuit of individual happiness playing a subsidiary role to the concept of self-sacrifice for the improved future of civilisation and the human species. As Jones and Merchant put it: "To labor incessantly, to strain the muscles, fret the mind, and weary the soul, and to shorten the life, all for the sake of supplying the wants of the body, and nothing more, is, I think inconceivable hardship" (120).

The original starting point of this study was the idea that perfect people are needed for a perfect society, but my research has shown that the utopianism of the late-nineteenth and twentieth centuries was not primarily about perfection but about perfecting, the process of improving society. Even the best societies described are still on their way to becoming better. In *Herland* (1915) each generation aspires to be better than the one before. Eugenics with its promise of accelerated evolution and swift but merciful genetic oblivion for the least perfect unsurprisingly plays a big role in this process. But the purpose of breeding better people is not competitive nationalism but a philosophical

quest for self-transcendence. The ever-evolving body represents a striving towards increased intelligence and morality which it is hoped will lead to greater perfection. My research demonstrates that it was more the idea of improving humans than the specifics of eugenics that captured the imagination of writers of utopian fiction. They show little interest in the political ramifications of eugenics, and their imaginary societies assume a consensual approach to the goals that will require eugenic discipline. Directing evolution was seen as more important than debating the ethics of specific approaches. Instead, the value of these works of utopian fiction resides in their representation of what to the writers are self-evident certainties. These treatises, often uncontaminated by realism, reveal the underlying conversations that fuelled and inspired the political enactment of eugenics. My study demonstrates that even works which at first do not appear to have much connection to eugenics engage with the wider issues of marriage, procreation, parenting and fashioning of the improved citizen, and suggest that utopian fiction provides a valuable resource for further study of the penetration of eugenic ideas into the psyche and mindset of late-nineteenth-century and early-twentieth-century society.

Fictional representations of eugenics have not disappeared. The increasing science-fictionalisation of utopia has allowed eugenics to thrive in the late-twentieth and early-twenty-first centuries, providing it with new names and allowing the dream of reinventing and improving humanity to take new forms. The popularity of the Young Adult dystopia has re-introduced eugenics as a topic, for example in the genetic experimentation behind the stratified society of Veronica Roth's *Divergent* trilogy. Genetic divergence and development of a new race of humans is also a key element in the continuing popularity of Marvel Comics's various *X-Me*n titles and the *X-Men* movies. Recent TV series such as *Utopia* (2013-14) and *Orphan Black* (2013-17) pick up on eugenic themes in the form of bioterrorists determined to reduce the world's population, or genetic engineering of clones to promote "Neolution", a new form of evolution. These current fictional representations of the biological future of humankind often indicate a sense of despair about the world that the next generations will inherit, seen as overpopulated and on the brink of ecological breakdown. The underlying theme seems to be that eugenics may not be good, but the alternatives are worse. The narratology of climate change which focuses on the idea of forces beyond our control has also adds a renewed sense of urgency to

the idea of improving people and making ourselves smart enough to control these forces. These recent works continue to ask similar questions to those posed by the utopian fiction of the late-nineteenth and early-twentieth century: questions about whether we can have a better society without better people, or why we need a better society and what the consequences of not striving to imagine better ways of organising society can be. For us, as for the Victorians, standing still is not an option, when the material world is changing fast, in our case through climate change, industrialisation of the Third World, globalisation, social media and virtual reality. It seems that we, as a society, are once more afraid of being out-evolved, not by another species, but by our own children and our own machines. Maybe Samuel Butler was more prescient than most in his predictions in “The Book of the Machines”, even if it was only a convenient analogy for evolution.

Returning to earlier works of utopian fiction to read the interaction with eugenics offers a useful perspective on current transhumanist utopianism and debates over humanism, posthumanism, gender difference and environmental rights. Reading these earlier works shows how similar the concerns over the future of the human species remain, and how much more slowly the human imagination changes than the social environment and advancing technologies that feed it. Better understanding of the kind of utopian ideas that motivated eugenics can offer perspective on the relationship between fictional representations and societal acceptance of ideas. In a recent anthology of transhumanist predictions, *The End of the Beginning* (2015), Viktoras Veitas of the Global Brain Institute points out that “Due to the reflexivity of sociotechnological systems, merely thinking and imagining the future means influencing it” (“Dialogue 1.1”). Popular culture now has a vast machinery for imagining the future, numerous media channels and mass audiences. In theory there should be no limits on what the popular, crowd-sourced imagination of the modern world can achieve. Yet, improved technology and greater levels of planning are not sufficient in themselves to deal with developments which challenge the trajectory of modern progress palpable in the form of Islamic extremism, the rise of right-wing populism, anti-abortion rhetoric and denial of the science behind climate change and evolution itself. It is important to understand what we can learn from utopianism, to be able to read its forms not just in the classical works of utopian fiction, but in the utopianism and

dystopianism of the emerging modern world to look at where the dream of scientific self-improvement can take us, and where it can lead us massively astray. Pulitzer prize-winning scientist Siddhartha Mukherjee argues in a recent TED talk that the metaphor of killing microbes to cure disease has locked Western medicine into an ineffective paradigm of targeting disease instead of re-growing cells. The metaphor in eugenics of preventing those who were defective from breeding led to mass sterilisations. Metaphors matter and utopian fiction in its past and present incarnations is an important source of metaphors. Historical studies of the scientific dreams of utopian fiction, such as this work on eugenics in utopian fiction, can help us understand whether we are using the appropriate metaphors and which metaphors might require re-examining, or changing, to understand and fashion the kind of world we wish to live in.

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